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Supreme Court of the United States

OCTOBER TERM, 1976

No. 76-532

OWEN FINLAY MACLAREN, MIRON CHARLES BELL, GENERAL  
RECREATION, INCORPORATED and GERICO INCORPORATED,

*Petitioners,*

*v.*

B-I-W GROUP, INC. and CROSS RIVER PRODUCTS, INC.,

*Respondents.*

PETITION FOR A WRIT OF CERTIORARI TO THE  
UNITED STATES COURT OF APPEALS FOR THE  
SECOND CIRCUIT

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*Petitioners,*

v.

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*Respondents.*

PETITION FOR A WRIT OF CERTIORARI TO THE  
 UNITED STATES COURT OF APPEALS FOR THE  
 SECOND CIRCUIT

Petitioners, pray that a writ of certiorari be granted to review so much of the judgment and opinion of the United States Court of Appeals for the Second Circuit, entered on May 20, 1976, in Appeal No. 75-7613 as adjudges certain claims of United States Patent No. 3,390,893 as invalid for failing to comply with the provisions of 35 U.S.C. § 103 thereby reversing the judgment of the United States District Court for the Southern District of New York.

**Opinions Below**

The Opinion of the District Court, reprinted as Appendix A (pages 1a-33a) is reported at 401 F.Supp. 283 (S.D.N.Y. 1975). The District Court's Judgment is re-

printed as Appendix B (page 34a). The Court of Appeals Opinion reprinted as Appendix C (pages 37a-61a) is reported at — F.2d —, 190 U.S.P.Q. 513 (2d Cir. 1976). The Orders denying rehearing, and rehearing *in banc*, are reprinted respectively as Appendix D (page 62a) and Appendix E (page 64a). The Court of Appeals Judgment is reprinted as Appendix F (pages 66a-67a).

### Jurisdiction

The Judgment of the United States Court of Appeals for the Second Circuit (Appendix C) was entered on May 20, 1976. Orders denying rehearing were entered July 20, 1976.

The jurisdiction of this Court is invoked under 28 U.S.C. §§ 1254(1) and 2101(c).

### The Question Presented

1. When in a patent claim to a combination all of the elements of the claimed combination are old but the combination is not obvious to those skilled in the art and all of the elements required to provide a new and unexpected result are specifically recited in the claim, must the unexpected result *additionally* be recited in the claim in order to satisfy the non-obviousness requirement of 35 U.S.C. 103?

2. Whether the Court of Appeals Decision holding claims of a patent invalid for failing to recite in the claims the unexpected functional result of the manner of cooperative folding of a combination of claimed structural elements of a mechanical combination is in conflict with the decisions of this court.

(a) The structure is for a collapsible support assembly for use as a baby stroller and the claimed elements as inter-

connected cooperate in enabling the structure to fold and unfold in one easy continuous motion. The structure is characterized by the patent as stick-folding and folds similar to an umbrella.

(b) All of the experts at the trial level, the District Court, and the Court of Appeals agree that a structure constructed in accordance with the patent will exhibit the novel type of simultaneous folding which is an unexpected result of the manner in which the claimed elements are connected.

(c) The law does not require, as the Court of Appeals found, that the folding result of the parts, i.e., simultaneous folding, need be literally claimed if the claimed elements as cooperatively connected must fold in the unexpected manner.

3. The District Court, Milton Pollack, D. J., in holding U. S. Patent 3,390,898 valid in compliance with 35 U.S.C. 103 applied the specific tests and followed the guide lines for the determination of non-obviousness set forth by this Court.

The Court of Appeals for the Second Circuit while accepting Judge Pollack's findings of the compliance of the patent in issue with the guide lines set forth by this Court, and recognizing that its claims described "in detail" the "essential features" of the collapsible support structure, nonetheless reversed Judge Pollack's conclusion of law that the invention was unobvious as required by 35 U.S.C. 103. Thus presenting the question: Where a combination claim sets forth elements "the end result of which is admittedly . . ." greater than one would expect from a combination of each of the individual components in the stroller (page 48a), for compliance with the non-obviousness provision of 35 U.S.C. 103, must that end result also be set forth in the claim. The District Court did not interpret existing law to impose this requirement. The Court of



Appeals in reversing found this to be error without citing any decision of the United States Supreme Court, any other Circuit Court, or indeed, its own past decisions as precedent.

4. The decision of the Court of Appeals imposes a new requirement for patentability of inventions that is nowhere present in the Constitution, statute or prior decisions of this Court.

### Statutory Provisions Involved

Title 35 U.S. Code §§ 103 and 282 are involved in this petition. These sections are reprinted in Appendix G (page 68a).

### Statement of the Case

The patent involved here is directed to a collapsible support structure embodied as a stroller. Its construction and operation can be readily understood by reference to Figure 1 of the patent which was attached to the Opinion of the Court of Appeals (page 61a).

The stroller has a bottom X-frame composed of parts 1 and 2 pivoted at 3 and a back X-frame composed of parts 4 and 5 pivoted at 6. Parts 7 and 7c pivoted at 7B and parts 8 and 8c pivoted at 8B provide brace members. In the language of the District Court "The structure must permit two types of movement: (1) each cross frame must be permitted to widen or contract and (2) each cross frame must be permitted to collapse as a whole on to the other cross frame." In the open or extended position shown in Figure 1 the knuckle joint 10 in the toggle bar at the bottom of the stroller holds the cross frames in an extended position preventing the X-frames from contracting or narrowing. In the position of Figure 1 the seat struts 12A, 12B and the knuckle joints 7B, 8B keep the brace members extended and prevent the folding of one

X-frame on the other. The operation set forth in the patent as recited by the Court of Appeals is:

To collapse and fold the mechanism, one breaks knuckle joint 10 at the center of the toggle bar by moving it in an upward direction either by hand or foot. The handles at 7D and 8D are then pressed together by hand. This collapses both X-frames and breaks the pivots 7B and 8B that lock the side braces. As the toggle bar folds both X-frames narrow; simultaneously, as the side braces unlock and fold, the two collapsed X-frames are rotated toward each other by pushing the handles 7D and 8D forward and downward until, when the structure is folded into a closed position, the side bars bounded by 7B-7D and 8B-8D run parallel to and press against the tubes marked 7C and 8C. The collapsed X-frames then also lie in a position parallel to the collapsed side braces. The result is a compact, stick-like mass. (pages 40a-41a)

While prior art patents individually disclosed each of the elements of the combination (tubes, rivets, X-frames, pivot joints, braces, etc.)—the prior art did not teach nor suggest a combination of elements in which rear and bottom support X-frames fold individually and on one another at the same time as in an umbrella. The Court of Appeals refused to consider the novel folding action resulting from the claimed combination since this result was not specifically recited in the claims and held Judge Pollack wrong for recognizing that none of the prior art provided this feature.

The Court of Appeals found the District Court in error because a functional result was not claimed. The Court of Appeals stated: "The error appears to have stemmed from the mistaken views—that the Maclaren patent claimed the novel feature of simultaneous folding—". (page 55a)

The Court of Appeals stated that the claims of the Maclaren patent describe in detail the essential features of the collapsible support structure but that the claims make

no reference to the folding action. (page 48a). That the parts which provide the folding action are clearly set forth in the claims—even though the resultant folding action is not specifically stated is not questioned by the Court of Appeals.

To simplify this petition reference can be made to claim 10 of the patent which specifically mentions the seat struts 12A, 12B.

Claim 10 reads as follows:

An assembly as claimed in claim 1, wherein said second releasable means comprises a pair of strut members, each pivotally connected to one of said brace members and to a cross frame.

In claim 1 of the patent which appears at page 39a, the "second releasable means to hold said brace members in an extended position when the assembly is unfolded" is the seat struts 12A, 12B and the knuckle joints 7B, 8B.

The expert for B-I-W testified that the seat struts 12A and 12B are the elements referred to in claim 10.

The uncontroverted testimony (of Maclaren's expert as well as B-I-W's two experts) established: that the pair of struts of claim 10 does "offer" the non-obvious improvement over the prior art of causing the "folding of the X-frames—[to be] accompanied by breaking of the braces so that the corners rise to the upward folded condition;" that the struts of claim 10 make the structure fold "automatically"; that without the struts the structure would not fold automatically; that the "non-obvious improvement" over the prior art offered by claim 10 is clearly supported by the record.

The fact that the unexpected result occurs by virtue of the specific second releasable means called for in claim 10 is also clearly supported in the record. The record is clear and uncontroverted that the particular second re-

leasable means of claim 10 (i.e., the pair of strut members each pivotally connected to one of said brace members and to a cross frame) provides the unexpected, non-obvious result of causing the automatic (i.e., "simultaneous" or "one action accompanied by the other" action) folding of the stroller and that by virtue of the struts being used as part of the second releasable means, the narrowing of the X-frames is accompanied by folding of the X-frames (i.e., breaking of the braces and lifting of the planes of the X-frame to the folded condition).

Thus the claims include all of the elements of the combination necessary to provide the resultant folding action.

The District Court expressly stated, and the Court of Appeals quoted the finding that

The end result is greater than one would expect from a combination of each of the individual components in the stroller. (page 48a)

The District Court in determining compliance of the Maclaren patent with 35 U.S.C. 103 applied the test that the Supreme Court delineated in *Graham v. John Deere Co.*, 383 U.S. 1 (1966). Specifically, the District Court made the following inquiry:

1. The scope and content of the prior art,
2. the differences between the prior art and the claims of the inventor, and
3. the level of ordinary skill in the pertinent art.

The District Court went on to point out that:

Attention may also be given to such secondary considerations as the commercial success of the claimed invention, the meeting of the long felt, but unsolved needs, and the failures of others, etc., citing for support 383 U.S. at 17. (page 16a)



In a detailed analysis, the District Court went through the prior art setting forth the scope and content of the prior art, differences of the prior art and the Maclaren claims and the level of skill. The District Court then concluded that while the individual elements of the claim were known and defined in the art, "the end result [obtained with the claimed combination] is greater than one would expect from a combination of each of the individual components in the stroller".

\* The Court of Appeals never disputed the District Court's finding, but merely stated that the District Court was in error to rely on an end result not set forth in the claims. (See 55a).

Hence, both the District Court and the Court of Appeals made the specific finding which signals valid patentability in accordance with the most recent decisions of this Court, *Anderson's-Black Rock v. Pavement Salvage Co.*, 396 U.S. 57 (1969); *Dann, Com'r. Pats. v. Johnston*, — U.S. — 189 USPQ 257 (1976); and *Sakraida v. Ag Pro, Inc.*, — U.S. — 189 USPQ 449 (1976).

Although not determinative of the question of law involved, further background is of interest.

The inventor, Owen Finlay Maclaren, a pioneer in aviation, has had a distinguished career in the field of engineering and design. He holds a number of patents in his name, most of them in the aircraft field and some of them relating to chairs or strollers. Some of Mr. Maclaren's work during World War II on aircraft under carriages have been displayed at the Smithsonian Institute, and one of his strollers, built in accordance with this patent, has been displayed in the Museum of Modern Art in New York. The patent in issue involves the world's best known and most successful baby stroller.

The infringers, B-I-W quickly recognized Maclaren's invention and proceeded to copy it, substantially part for

part without bothering to design a stroller of their own based on the principles available in the known art. They blatantly copied. They then publicized their copy as an invention and held themselves out to be the inventors of a device they later claimed in court to be old in the art. The District Court called the stroller "undeniably clever", and the Court of Appeals called it "a useful—indeed highly successful—creation".

This stroller takes nothing from the public. Without this invention the public would have been deprived of a remarkable contribution which has found acceptance throughout the world. There is no prior art. The Second Circuit Court of Appeals held it to be obvious in view of a 103 year old patent to the Turner sewing machine holder which did not fold in the manner in which the combination provided by the elements recited in the Maclaren claims is constrained to fold. The Court of Appeals read the unique folding of the Maclaren invention out of the patent claims because the result was not specifically stated in the claims.

### The Reasons for Granting the Petition

This Court is no stranger to patents and to the question of what should be the standard of patentability of inventions in the United States.

The District Court in this case, after making the "basic factual inquiries" in accordance with *Deere*, made the additional finding of fact:

The end result is greater than one would expect from a combination of each of the individual components in the stroller. (page 48a)

That finding of fact which was quoted by the Court of Appeals in its decision supports the position that the Maclaren invention:

. . . can be properly characterized as synergistic, that is, "result[ing] in an effect greater than the sum of

the several effects taken separately. *Andersons'-Black Rock v. Pavement Salvage Co.*, 396 U. S. 57, 61 (1969), *Sakraida v. Ag Pro, Inc.*, — U. S. —, 189 U.S.P.Q. 449 (1976).

This Court in *United States v. Adams*, 383 U.S. 39 (1966), while not deciding the question of law presented herein, did not require that the unexpected results of a claimed invention be recited in the patent claims for those claims to be valid. In *Adams*, the claims recited elements which comprised a battery. The surprising results of that battery structure were (1) that it was water-activatable, and (2) that it produced constant potential. Neither water nor constant potential were mentioned or even remotely suggested in either *Adams'* claim 1 or claim 10, both of which this Court held valid. The Second Circuit's decision in the present case conflicts with this Court's interpretation of 35 U.S.C. § 103 in *Adams*.

The Second Circuit by its reversal of the District Court opinion has added still further requirements to the Supreme Court test for compliance with 35 U.S.C. 103. Namely, the Court of Appeals has, in effect, stated that for a combination claim to be valid, it is not sufficient for the elements of the combination which produce the unexpected result to be recited, but the result itself must be specifically set forth in the claim. As noted above, the Second Circuit has no support for its position.

There is a broad public interest here which goes much beyond the present parties.

1. The case law through the *Ag Pro* case in respect to the question of obviousness of a combination claim does not require that a functional result of the claimed structure be recited. This decision in the Second Circuit Court of Appeals makes this a requirement.

2. The Court of Appeals in attempting to make new law by imposing an additional and unprecedented requirement for validity of a combination claim has brought about an unjust and inequitable result.

Respectfully submitted,

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**APPENDIX A**

**Opinion of the District Court.**

**UNITED STATES DISTRICT COURT**

SOUTHERN DISTRICT OF NEW YORK

70 Civ. 5348 (MP)

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OWEN FINLAY MACLAREN and MIRON CHARLES BELL,  
Plaintiffs,

v.

B-I-W GROUP INC., and GENESEE PLASTIC COMPANY, INC.,  
Defendants.

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B-I-W GROUP INC.,  
Counterclaim-Plaintiff,

v.

OWEN FINLAY MACLAREN, MIRON CHARLES BELL, GENERAL  
RECREATION, INCORPORATED and GERICO INCORPORATED,  
Counterclaim-Defendants.

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**OPINION**

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MILTON POLLACK, District Judge.

*Opinion of the District Court.*

MILTON POLLACK, District Judge.

This is a suit arising under the patent laws in which the inventor and patentee, Maclaren, and his American licensee, Bell, charge defendants B-I-W Group Incorporated<sup>1</sup> and Cross River Products, Inc. with wilful infringement of United States Letters Patent No. 3,390,893, issued to Maclaren for "Structures for Folding Baby-Carriages, Chairs and the Like" on July 2, 1968.

In its answer, B-I-W denied infringement and asserted that the patent is invalid on the grounds of (1) obviousness and lack of novelty and utility, (2) insufficient disclosure of the invention, and (3) late claiming based upon public use. B-I-W also brought two counterclaims, the first seeking a declaratory judgment that the patent is invalid and not infringed and the second, which was subsequently withdrawn, alleging unfair competition on the basis of threats of suit made to B-I-W's sales representatives and customers. General Recreation, Inc. and Gerico, Inc. were joined as additional defendants on the counterclaim as sublicensees of Bell under an agreement signed in November 1972.

The Court concludes that the patent is valid and that it is infringed by defendants' stroller. Accordingly, judgment will be entered in favor of the plaintiffs against defendants<sup>2</sup> on liability for infringement, and B-I-W's counter-

<sup>1</sup> B-I-W Group Incorporated ("B-I-W" hereafter), formed under the name Best in the World, Inc., was merged into Cross River Products, Inc. on July 17, 1972 after this suit was filed. B-I-W also had two corporate predecessors, Brown Brothers Wilson, Inc. and Jefferson Leisure Products, Inc., to which occasional references were made in the record. For the sake of convenience, all these entities will be collectively referred to as B-I-W in this opinion.

<sup>2</sup> Genessee Plastics Company, Inc. was also joined as a contributory infringer on the basis of its alleged manufacturing and supplying of parts to B-I-W. Genessee was dismissed from this suit at the close of the trial on the basis of a final judgment on consent entered into with plaintiffs.

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claim for a declaratory judgment of patent invalidity and non-infringement will be dismissed.

The dispute in this action concerns the right to manufacture a type of collapsible baby stroller which has experienced stunning commercial success in the last several years and is now the best selling stroller on the market, according to the testimony of plaintiffs' trade expert.<sup>3</sup> The type of stroller involved in this suit is lightweight, but sturdy and may be collapsed with one hand into the compact shape of an umbrella,<sup>4</sup> rather than a bulky rectangle. As can readily be imagined, such a stroller would be particularly useful to parents travelling by subway or bus or living in non-elevator buildings and is stored easily in the trunk of the smallest compact car. The conception of this type of stroller is undeniably clever. However, the question as posed by B-I-W is whether Maclaren's creativity was that of an inventor or simply that of a skilled mechanic.

Owen Finlay Maclaren, the named inventor and owner of the patent herein, is presently a director of Andrews Maclaren, Ltd., a British company which manufactures and sells strollers of the type depicted in figure 4 of the patent in countries other than the United States under the trademark "BABY BUGGY". Maclaren has had a distinguished career in the field of engineering and design and is a member of the Society of Automotive Engineers, U.S.A. and an Associate Fellow of the Royal Aeronautical Society. Maclaren holds a number of patents in his name, most of

<sup>3</sup> Lew W. Throssel has been engaged in the marketing and administrative areas of the juvenile furniture business since 1951. He is presently President of Questor Juvenile Furniture Company. Although Questor is the largest juvenile sales company in the United States, its only attempt to enter the stroller market was unsuccessful. The Court finds that Throssel is qualified to testify as an expert on the marketing aspects of the Maclaren stroller.

<sup>4</sup> The B-I-W stroller is identified by and marketed under the trademark "UMBROLLER".

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them in the aircraft field and some of them relating to chairs and strollers. Some of Maclaren's work on aircraft undercarriages has been displayed at the Smithsonian Institute, and one of his strollers, of the type of figure 4 of the patent, has been displayed in the Museum of Modern Art.

Maclaren's patent application was filed with the United States Patent Office on July 18, 1966, claiming priority of Great Britain Applications 30,787/65 filed on July 20, 1965 and 34,181/65 filed on August 10, 1965. The British applications subsequently issued as British Patent No. 1,154,362. Following a number of amendments, the United States patent was issued on July 2, 1968; it is entitled to the 1965 filing dates of the British applications from which it claims priority pursuant to the provisions of 35 U.S.C. § 119. Maclaren first sold a product constructed in accordance with the teachings of the patent in or about February 1967 in Great Britain.

The first contact with the Maclaren stroller by any of the B-I-W principals<sup>5</sup> was in London in the summer of 1969 when Goodwin purchased a stroller and brought it back to the United States. In the fall, Goodwin demonstrated to Brown how the stroller collapsed and indicated that his child had liked it.<sup>6</sup> Three weeks later, Brown and

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<sup>5</sup> At the times relevant to this litigation, Alexandre C. Goodwin was Chairman of the Board, Secretary and Corporate Counsel of B-I-W; D. Deaver Brown was Director, President and Treasurer; and James L. Sloan was Director and Vice President. Their backgrounds were in law, business and engineering respectively.

<sup>6</sup> During 1971 and 1972 at least one newspaper article appeared which could give the impression that the idea of the UMBROLLER type stroller was conceived by the principals of B-I-W without the benefit of the Maclaren stroller while they were sitting at home one evening trying to think of a new product that would be useful for their wives and children. The testimony by the principals introduced at trial indicates that such an impression would be plainly incorrect.

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Goodwin decided to pursue the stroller as a "business problem" for their company which at that time had venture capital but no product. At a third meeting they discussed the fact that the stroller was patented, as well as their research into possible new markets which their company might enter. They concluded that entry into the juvenile furniture market would be relatively easy because the industry was badly managed and the capital requirements were low.

On December 27, 1969, Goodwin wrote to Maclaren indicating that they were "sincerely impressed" with the patented BABY BUGGY and inquiring whether Maclaren would be interested in negotiating with them concerning the manufacture of the stroller. Maclaren replied that he had licensed Bell to manufacture products under the patent in the United States.<sup>7</sup> Goodwin in turn arranged a meeting with Bell in January 1970 to discuss a sub-license under the Maclaren patent. Brown and Goodwin indicated to Bell that their thinking about manufacturing the stroller was just in an exploratory stage at that point.

In January or February 1970, Goodwin and Brown decided to bring Sloan in on their review of the stroller, to consider technical production questions about costs. Sloan examined how the parts of the Maclaren stroller were manufactured and assembled. Goodwin, a lawyer, began reviewing the Maclaren patent itself and later consulted a patent lawyer named Booth. In February, Goodwin told Brown that he was pretty sure, but not positive, that the Maclaren patent was invalid.

Goodwin and Brown met again with Bell on February 27, 1970 to continue discussion of a sublicense. Goodwin told Bell that he thought that there were weaknesses in the

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<sup>7</sup> Brown subsequently inquired in January 1970 about the possibility of manufacturing a shopping cart using the BABY BUGGY design, but Maclaren replied that Bell also had the rights under the patent to manufacture a shopping cart.



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patent, but Bell did not agree. Brown and Goodwin thought that Bell's price was too high for them to manufacture under a sublicense, and they decided that Goodwin would complete the patent search.

Goodwin and Brown made their final overture to Bell by letter in early March, indicating that B-I-W intended to manufacture a non-infringing product which would be highly competitive and suggesting that Bell cooperate with them in attacking the market. Goodwin again reiterated their doubts about the validity of the patent and suggested that Bell undertake a critical examination by patent counsel. Bell never responded to that letter.

On March 15th, Brown, Goodwin, Sloan and Booth met to discuss the stroller. Brown indicated that he did not want to get involved with a product that would drag them into court and that he was skeptical about proceeding with the stroller. Goodwin and Booth argued on the basis of 30 to 50 patents that somebody else had previously developed the stroller idea and were ultimately able to convince Brown that the patent was invalid or could be found to be invalid.

The first B-I-W prototype was produced in May or June of 1970. Sloan testified that the parts of the Maclaren stroller were not duplicated, but that B-I-W tried to construct a stroller with similar structural components and that a majority of the parts of the first prototype were similar to those of the Maclaren stroller. A comparison of the Maclaren BABY BUGGY and the B-I-W UMBROLLER strongly suggests that such testimony constitutes a rather disingenuous understatement.

On August 27, 1970, Goodwin wrote to Maclaren, stating that they believed the patent to be invalid, or, if not invalid, easily circumvented and that they had:

. . . every intention of entering the subject market with a highly collapsible item, and we are at this time

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actively engaged in preparations toward that end. Prior to undertaking a critical examination of the patent to you, we had already identified reasonable alternatives in the prior art. A competitive alternative is still under consideration; however, pending one remaining cost decision, *we shall probably commence the manufacture and distribution of a model allegedly covered by the patent to you.* (Emphasis added)

Goodwin then indicated that if the asserted defects in the patent, which were identified in an accompanying memorandum, could be corrected, B-I-W would be prepared to negotiate within a framework specified in the letter. No agreement was ever reached between Maclaren and B-I-W. The latter proceeded with the manufacture and marketing of its unpatented folding stroller through a subcontractor and a subsidiary and this suit was thereafter filed on December 7, 1970.

## THE PATENT

United States Letters Patent No. 3,390,893 for "Structures for Folding Baby-Carriages, Chairs and the Like" was issued with one independent claim describing the basic structure and 14 dependent claims describing various refinements in the structure. Claim 1 of the patent defines a collapsible support assembly consisting of a bottom cross frame and a back cross frame each consisting of inter-pivoted rigid members. Two-axes pivot joints interpivotally attach one of each of the bottom frame members to one of each of the back frame members at each of two corners of the cross frames to permit the members of each cross frame to pivot with respect to each other and to permit the cross frames to pivot with respect to each other. Two foldable brace members are pivotally attached to the bottom cross frame near the other two corners of the bottom cross frame respectively and to the back cross



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frame near the other two corners of the back cross frame respectively. The "first releasable means" holds the members of at least one of the cross frames in an extended position when the assembly is unfolded. (Members 9A, 9B and knuckle joint 10 in the drawings) The "second releasable means" holds the foldable brace members in an extended position when the assembly is unfolded.

The structure must permit two types of movement: (1) each cross frame must be permitted to widen or contract and (2) each cross frame must be permitted to collapse as a whole on to the other cross frame. When the structure is in the extended position, the same two types of folding movement must be prevented. Collapse of one cross frame on to the other is prevented by keeping the side braces extended. Prevention of inward or outward folding of the side braces is the function of the "second releasable means".

As mentioned in the specification, there are many folding structures of this kind, and most of them fold "flat"; that is to say their extended and basically 3-dimensional envelope, is foldable into a basically 2-dimensional envelope disregarding the obviously necessary structural volume when folded. The invention is concerned with structures which may be colloquially described as "stick folding" as compared to "flat folding", i.e., a three dimensional structure which is foldable in effect into a single dimension in the same sense as an umbrella, rather than into two dimensions in the same sense as an ordinary bridge chair. The specification and drawings disclose simultaneous folding in the two dimensions, the collapsing action of the back and bottom frames being accompanied by the breaking of the braces so that the corners of the bottom frame rise toward the upward folding position depicted in figure 2 of the patent. The specification indicates that such a structure when folded may be easily

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stored and when extended may be lightweight yet sturdy.

The specification and accompanying drawings describe in particular two baby strollers or carriages as examples of the invention, but the specification expressly indicates that the invention also contemplates folding chairs, invalid chairs, shopping carriers "or any such article, where a three-dimensional structure is required to be folded into a stick-like formation".

## INVALIDITY OF THE PATENT

Simply stated, the conditions of patentability are: novelty, utility, and unobviousness, provided the right to patent has not been lost, and full disclosure. B-I-W argues that the patent is invalid on three basic grounds: (1) the patent does not adequately disclose the claimed invention as required by 35 U.S.C. § 112, (2) the claimed invention is neither useful, nor novel, nor non-obvious as required by 35 U.S.C. §§ 101, 102 and 103, and (3) certain features of the invention were in public use more than one year before they were claimed in the patent application.

1. *Disclosure*

No invention can be patented unless it is so fully disclosed that the public is enabled to use it. This is the quid pro quo given in exchange for the temporary right to exclude.

B-I-W's expert Gambrell<sup>\*</sup> testified that if the stroller actually produced by Maclaren represents his invention, the

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<sup>\*</sup> The experts who testified for the parties respectively each have impressive technical backgrounds. Gambrell has been a university professor of law teaching patent law since 1966. Prior to that time, he was engaged in the practice of patent law. The Court finds that he is qualified to testify as an expert. The two

(footnote continued on following page)

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patent itself does not adequately disclose or claim that invention. Section 112 of Title 35 provides that:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The purpose of this requirement for an "enabling disclosure" is twofold: first, to enable those skilled in the art to understand and apply the teaching of the invention, and second, to avoid uncertainty as to the scope of the invention which might discourage enterprise and experimentation. *Georgia-Pacific Corp. v. United States Plywood Corp.*, 258 F.2d 124, 136 (2d Cir.), *cert. denied*, 358 U.S. 884 (1958). Whether the inventor has met the statutory requirement is determined by inquiring whether the disclosure of the patent—the technical description with drawings—is sufficient to enable one skilled in the art to make and use the product without undue experimentation. *Ansul*

(footnote continued from preceding page)

mechanical experts who testified at trial are Don A. Fischer for plaintiffs and Ferdinand Freudenstein for defendants. Fischer is presently a consulting engineer, registered as a professional engineer in Missouri and Colorado and admitted to the Bar in Missouri. Fischer in the course of 25 years was a professor and university Dean of electrical and industrial engineering prior to his becoming a consulting engineer, during which period he taught courses and worked on projects involving mechanical and engineering problems. Freudenstein has been a university professor of mechanical engineering since 1959, has published numerous articles in the area of mechanical engineering, and has received a number of grants from the National Science Foundation. The Court finds that both Fischer and Freudenstein are qualified to testify on the mechanical aspects of the Maclaren patent.

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*Company v. Uniroyal, Inc.*, 448 F.2d 872, 879 (2d Cir. 1971), *cert. denied*, 404 U.S. 1018 (1972). The claims that appear in the patent following the specification are also part of the specification. They are separate, legally-technical definitions of the invention covered by the patent, defining the scope of the patentee's protection.

B-I-W contends that the disclosure in the Maclaren patent is inadequate in the following respects: (1) the working of the pivot joint described in claim one, (2) the elements constituting the second releasable means described in claim 1, and (3) the point of connection of the seat and wheel struts to the foldable brace members.

The two types of folding movement described in claim 1 require movement about at least three axes. B-I-W contends that claim 1 discloses a pivot joint allowing movement about only two axes and therefore describes an inoperable device which is an inadequate recitation under § 112. *See Indiana General Corp. v. Krystinel Corp.*, 297 F. Supp. 427, 441 (S.D.N.Y. 1969), *aff'd*, 421 F.2d 1023 (2d Cir.), *cert. denied*, 398 U.S. 928 (1970). The relevant language of claim 1 is as follows:

... a two-axes pivot joint interpivotally attaching one of each of the bottom frame members to one of each of the back frame members at each of two corners of said cross frames, said axes being oriented to permit the members of each cross frame to pivot with respect to each other and to permit said cross frames to pivot with respect to each other . . .

Maclaren contends that the language of claim 1 taken as a whole does disclose an operable pivot joint, a third axis being provided by the phrase "interpivotally attaching" read in conjunction with the remainder of claim 1 which discusses the type of relative movement which the pivot joint must permit.



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The Courts have recognized the problems posed by the inexactitude of language in an area requiring precision of description, *e.g.*, *Georgia-Pacific Corp. v. United States Plywood Corp.*, 258 F.2d 124, 136 (2d Cir.), *cert. denied*, 358 U.S. 884 (1958), and it has been said that an inventor may be his own lexicographer. *E.g.*, *Bela Seating Company v. Poloron Products, Inc.*, 297 F. Supp. 489, 506 (N.D. Ill. 1968), *aff'd*, 438 F.2d 733 (7th Cir. 1971), *cert. denied*, 403 U.S. 922 (1971). The function of claims is to define the scope of the invention; it is not their function to describe the embodiment. Claims are legal definitions, not descriptions. Disclosure is further performed by the patent specification and accompanying drawings which may elucidate the claims of the patent. *Shaw v. E.B. & A.C. Whiting Co.*, 417 F.2d 1097, 1106 n. 11 (2d Cir. 1969) *cert. denied*, 397 U.S. 1076 (1970); *Autogiro Company of America v. United States*, 384 F.2d 391, 398 (Ct. Claims 1967); *see United States v. Adams*, 383 U.S. 39, 48-49 (1966).

The Court concludes that claim 1 read in conjunction with the specification and figures 1, 2, 3 and 4 adequately discloses the nature of the claimed pivot joint to one skilled in the art. Claim 1 and the specification adequately disclose the nature of the two types of folding which must be permitted. A comparison of figures 1 and 4 with 2 and 3 illustrates the "before" and "after" results of the folding. The mechanical principles involved in the operation of the Maclaren strollers are not particularly complicated, and it seems most probable that one skilled in the art would readily realize that three axes of movement would be required to accomplish the type of folding described and that "interpivotally attaching . . ." described the third axis. Moreover, the drawings in the patent suggest the relatively simple hardware—two L shaped brackets and 3 pins—which may be used to achieve the desired result.

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Claim 1 includes a "second releasable means to hold said [foldable] brace members in an extended position when the assembly is unfolded." Section 112 provides in pertinent part that:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Maclaren contends that the second releasable means consists of the knuckle joints (parts 7B and 8B in figures 1 and 4 of the patent) plus either the seat struts (12A and 12B in figures 1 and 4) or the wheel struts (40, 41 in figure 4, not contained in the figure 1 embodiment of the patent) or both sets of struts. B-I-W contends that the disclosure of the second releasable means is inadequate and is in fact limited to the knuckle joints. B-I-W further contends that a second releasable means limited to the two knuckle joints would have been obvious in light of the prior art which is discussed below.

If the second releasable means is to "hold" the foldable brace members extended, it must prevent both inward and outward folding. The knuckle joint will prevent outward fold, but does nothing to prevent inward fold. Both mechanical experts agreed that if neither set of struts were present, the foldable braces would collapse when inward pressure was applied, for example by the weight of a baby placed on the seat. B-I-W's expert testified, however, that because of the special cooperation of all the members of the structure, the struts do not contribute anything more to the function of the second releasable means than the other members do. While it is true that the rigidity of the structure depends on the interaction of all the members, the

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struts do contribute to preventing inward folding of the side braces in a more direct sense than the other members.

The Court concludes that since the function of the second releasable means is to "hold" the side braces extended, a mechanic skilled in the art would readily and necessarily infer that the second releasable means consisted of something beyond the knuckle joints in order to prevent inward folding of the side braces and that that something would be the seat and wheel struts connected to the side braces. Claim 1 itself defines only the function of the second releasable means.<sup>9</sup> As § 112 indicates, one may look to the specification or its equivalent for a description of the components of the second releasable means. B-I-W properly points out that any express reference in the specification to the seat struts and the wheel struts by member number is in the apparent context of supporting the seat or the wheels. (col. 3, lines 53-59; col. 4, lines 29-37). This does not necessarily preclude their performing an additional function, and Maclaren's mechanical expert testified that the role of the struts as part of the second releasable means is implicitly recited in the description of the folding movement in column 4, lines 6-12 of the patent specification, which refer the reader to figures 2 and 3 as well. If one follows in figure 2 the nature of the folding movement described in column 4, the role of the struts and the sense in which they are "releasable" from the locked or extended position becomes apparent. Moreover, both figures 1 and 4 illustrate that the seat struts in the former and both the seat struts and the wheel struts in the latter perform the function of the second releasable means of keeping the side braces extended by preventing inward fold. While it may

<sup>9</sup> Claim 10 defines "an assembly as claimed in claim 1, wherein said second releasable means comprises a pair of strut members, each pivotally connected to one of said brace members and to a cross-frame."

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be that one skilled in the art would have to think a bit about the components of the second releasable means, the drawings and the specification considered in light of the relatively simple mechanical principles embodied in the stroller nonetheless meet the disclosure requirements of § 112.

B-I-W attempted to demonstrate by a mechanical experiment at trial that the point of connection of the seat strut to the brace element, which rigidly fixes the pivoting length of the strut, must be selected with precision in order to prevent any undue bending pressures on the joints which would otherwise result as the fixed length of the strut rotates through the required folding action. B-I-W pointed out that the proper connection point is not even remotely indicated in the patent drawings and argued that the drawings must precisely locate that point since the role of the seat and wheel struts as part of the second releasable means is at best disclosed by mere implication in the claim and specification.

The test of disclosure, however, is only that one skilled in the art must be able to ascertain the invention without undue experimentation. Maclaren's mechanical expert testified that the proper location of the connection points for the struts could be determined either through the use of drafting with proper scale and perspective, which the patent drawings do not purport to present,<sup>10</sup> or through trial and error with an actual model. The Court finds that the patent discloses sufficient information to enable one skilled in the art to succeed with either or a combination of both approaches without undue experimentation.

<sup>10</sup> There is no requirement that the drawings accompanying the patent as permitted by 35 U.S.C. § 113 be so detailed as to be production specifications. *Trio Process Corporation v. L. Goldstein's Sons, Inc.*, 461 F.2d 66, 74 (3d Cir.), — *cert. denied*, 409 U.S. 997 (1972).



*Opinion of the District Court.**2. Utility, Novelty and Non-obviousness*

In order for a claimed invention to be patentable, it must be new and useful, 35 U.S.C. § 101, and meet the requirements of novelty under § 102 and satisfy the requirement of non-obviousness under 35 U.S.C. § 103. *E.g.*, *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966). The statutory bar, 35 U.S.C. § 102 is a one year time bar. If the applicant's invention is described in a patent or publication anywhere, or is in public use or on sale in this country more than one year before he files his application (no matter when he made the invention), there is a loss of right to a patent.

The requirement under § 103 is that:

A patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Mere novelty is not enough to satisfy the requirement of non-obviousness. The Supreme Court delineated in the *Graham* case three inquiries to be made in applying the test of non-obviousness: (1) the scope and content of the prior art, (2) the differences between the prior art and the claims of the inventor, and (3) the level of ordinary skill in the pertinent art. Attention may also be given to such secondary considerations as the commercial success of the claimed invention, the meeting of long felt, but unsolved needs, and the failures of others, etc. 383 U.S. at 17.

The judicial investigation is to determine § 103 unobviousness, not the presence or absence of "invention". There is always an invention before the Court; the issue is its patentability. The question is determined as to the subject matter as a whole (i.e., the whole invention) and as of

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the time the invention was made with reference to a person having ordinary skill in the art (somewhat analogous to the "ordinary reasonable man" of negligence law).

The pertinent prior art is that to which one could reasonably be expected to look for a solution of the problem which the patented device attempts to solve. *Burgess Cellulose Co. v. Wood Flong Corp.*, 431 F.2d 505, 508-509 (2d Cir. 1970). The Maclaren patent indicates that the invention is directed toward a structure for a baby carriage or the like which is stickfolding as opposed to flatfolding, compact and lightweight, yet sturdy. Maclaren argues in effect that one would look simply to folding strollers or other similar juvenile items. B-I-W argues that the claimed invention pertains to a collapsible support assembly without limitation as to its potential use and that the relevant prior art therefore encompasses the particular subfield of collapsible support assemblies (which in general would extend from ladders to drawbridges) which are stickfolding as opposed to flatfolding, without limitation as to potential use.

By its very terms, the patent is not limited to strollers. It also expressly speaks of folding chairs, shopping carriers, and invalid chairs. Maclaren himself wrote to Brown that the license agreement with Bell covered the manufacture of shopping carts under the patent. In the context of the adequacy of disclosure by the patent, Maclaren indicated that the appropriate art was that of folding structures in general. At the same time, however, the use of the phrases "and the like" and "any such article" does provide a meaningful if somewhat vague limitation to the reach of the patent and the appropriate prior art to be considered.

The Court concludes that the relevant prior art is defined by stickfolding collapsible support assemblies used for strollers and for seating and carrying purposes in closely related fields. Reference to particular collapsible

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support assemblies beyond this would be relevant in this case only insofar as they disclosed mechanical principles and applications widely known throughout the useful arts. See *Supreme Equipment & Systems Corp. v. Lear Siegler, Inc.*, 495 F.2d 860, 862 (2d Cir. 1974).

The Patent Office considered the Maclaren application in light of the Moss, Altruda, and Tapiovaara United States Patents and the Morin French patent and initially rejected the key claims of the application as unpatentable under § 103. Maclaren ultimately distinguished these prior art references by emphasizing that the cross frames and pivotal connections of the claimed structure provided sufficient rigidity and freedom of movement to obviate the need for the heavier, more complicated structures disclosed by the patents cited by the examiner.

B-I-W, referring to prior patents for both strollers and collapsible support assemblies for other uses, argues that the most pertinent prior art was not considered by the Patent Office.<sup>11</sup> B-I-W's expert witnesses based their discussion of obviousness and the prior art primarily upon the Shibazaki stroller patent (Japan No. 24216, March 18, 1926), the Turner patent for a foldable frame for holding work on a sewing machine (United States No. 146,110, December 20, 1893), the Nickles collapsible tent patent (United States No. 1,773,847, August 26, 1930), and the

<sup>11</sup> Once issued, a patent is presumed by statute to be valid. 35 U.S.C. § 282. However, the weight to be given that presumption may be undercut in general by the administrative burdens on the Patent Office of the increasing number of patent applications and the *ex parte* nature of the application proceeding and in particular cases by the failure of the Patent Office to consider appropriate prior art references raised by the alleged infringer at the trial on the merits. *E.g., Kahn v. Dynamics Corp. of America*, 508 F.2d 939, 942 (2d Cir. 1974), *cert. denied*, 95 S. Ct. 1657 (1975); *Lemelson v. Topper Corp.*, 450 F.2d 845, 849 (2d Cir. 1971), *cert. denied*, 405 U.S. 989 (1972). See generally *Koppers Company, Inc. v. S&S Corrugated Paper Machinery Co., Inc.*, — F.2d — (2d Cir. 1975).

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Martinson patent for a collapsible frame for a churn (United States No. 1,250,923, December 18, 1967).

Shibazaki discloses the use in a stroller of a stickfolding collapsible support assembly and at first glance appears to be identical to the Maclaren stroller's triangular orientation of two X frames connected by two side braces. The side braces, however, are not foldable and the bottom and back frames, each consisting of parallel as well as cross members, are connected to the side braces by slides rather than by pivot joints. The cross frames in the Shibazaki stroller fold away from each other, ultimately lying one next to the other in the same plane when folded and thus provide a longer item when folded than when opened. Since the side braces are not foldable, Shibazaki does not disclose a "second releasable means" to hold them extended. It does disclose the use of toggle bars to keep the cross frames extended, the function of the first releasable means in the Maclaren patent. The Shibazaki stroller discloses simultaneous two dimensional folding, although six operations of unlocking are required before folding may be commenced. It would not have been obvious to a person skilled in the art to modify and rearrange the Shibazaki mechanism to the permutation defined in claim 1 herein.

The Turner patent covers a collapsible frame for holding work on a sewing machine and may be considered part of the relevant prior art. The structure discloses a triangular orientation between a bottom and back frame, each consisting of two parallel members and a "lazy tongs" cross member, and two foldable side braces, which permit inward folding. There is, however, no structure to keep the braces extended when the structure is unfolded, and Turner thus does not disclose a second releasable means. Moreover, the means by which the lazy tongs of the two frames are kept extended, which would be analogous to the first releasable means, is not organic to the structure, but rather is provided by positioning the two clamps of the



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bottom frame at a desired width apart on another object. Finally, the structure discloses stick folding, although the two dimensional folding is not simultaneous since the two frames and the side braces are not interconnected and widening or narrowing the lazy tongs does not cause them to fold downward onto each other.

The Nickles collapsible tent does not fall within the scope of the prior art as defined by the Court. The Nickles tent frame is wholly unsuited for use as a stroller or the like; it includes many structural differences from the structure of the present invention. Assuming *arguendo* that the Nickles tent falls within the scope of the prior art, the only additional element which Nickles could be said to disclose would be a "second releasable means" of dubious utility to a stroller. The equivalent of a foldable side brace in the Nickles tent is the foldable brace running along the ground and connecting the two sides. This brace is held in the extended position by the ground and a rope insofar as downward break is prevented, but there is no structure which prevents an upward break in the brace.

The Martinson patent which discloses a collapsible frame for holding a churn is also cited as part of the relevant prior art; it is unsuitable for use as a stroller or the like. As with the Nickles tent, the Martinson churn frame does not disclose a "back" and "bottom" frame, but rather two "side" frames. The cross members of the frames in Martinson are not interpivoted, nor are they rigid. Each cross frame is held extended by a strut which is detachable at one end. A foldable side brace connecting the two cross frames is kept extended insofar as preventing it from breaking downward is concerned, by a knuckle joint. The normal forces on the structure do not pose the problem of an upward break while the side brace is in an extended position.

The other stroller references cited by B-I-W are the Scorey patent (United States No. 1,300,033, April 8, 1919);

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the Tailland patent (Britain No. 305,928, May 5, 1930) and the Hurvitz patent (United States No. 3,094,339, June 18, 1963). Scorey and Tailland do not add anything to the prior art as delineated by B-I-W's primary references, although it is worth noting that Tailland demonstrates simultaneous folding, Hurvitz does disclose a foldable side brace with a knuckle joint and seat strut, but not in the context of a stick-folding stroller with a relatively small number of specially cooperating parts.

The other non-stroller collapsible support assembly references cited by B-I-W are the Maclaren chair (United States No. 3,124,387, March 10, 1964); the Giordano collapsible shopping cart (United States No. 2,421,751, June 10, 1947); the Edwards folding chair (United States No. 1,299,826, April 8, 1919); and the Burda collapsible window platform (United States No. 2,085,572, June 29, 1937). None of these patents add anything to the primary references cited by B-I-W.

Maclaren's mechanical expert testified that there was nothing new about the individual elements of the Maclaren invention. This is not unusual. Substantially all mechanical inventions are combinations of elements, generally all old elements.

As Judge Learned Hand observed in *Safety Car Heating & Lighting Co. v. General Electric Co.*, 155 F.2d 937, 939 (2d Cir. 1946):

Substantially all inventions are for the combination of old elements; what counts is the selection, out of all their possible permutations, of that new combination which will be serviceable.

Judge Learned Hand phrased the crux of the matter in *B.G. Corp. v. Walter Kidde & Co.*, 79 F.2d 20, 22 (2d Cir. 1935):

All machines are made up of the same elements . . . But the elements are capable of an infinity of permuta-

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tions, and the selection of that group which proves serviceable to a given need may require a high degree of originality. It is that act of selection which is the invention.

See also *Ling-Temco-Vought, Inc. v. Kollsman Instrument Corp.*, 372 F.2d 263, 268 (2d Cir. 1967).

The prior art references indicate that the use of a stick-folding structure in collapsible support assemblies in general and in strollers in particular was known prior to the Maclaren patent. Simultaneous folding in two dimensions was also known in strollers as indicated by Shibazaki and Tailland. Moreover, the prior art discloses the use of cross frames, pivot joints, toggle bars, foldable side braces, knuckle joints, and struts in folding structures. However, no single item of prior art shows the complete combination.

To invalidate the claim it must be shown that the combination was obvious, not merely its components. And the Court must avoid the temptation of hindsight to read into the prior art the teachings of the patent itself. *E.g.*, *Graham v. John Deere Co.*, 383 U.S. 1, 36 (1966).

The critical question is thus whether the Maclaren arrangement would have been obvious to a mechanic of ordinary skill in the art having the prior art in mind. See *Supreme Equipment and Systems Corp. v. Lear Siegler, Inc.*, 495 F.2d 860, 862 (2d Cir. 1974).

The Maclaren invention introduced the novel feature of simultaneous one-hand folding of the structure. As one presses on the side braces, the bottom of the stroller folds upward as a result of the corporation, as controlled by the first and second releasable means<sup>12</sup> of the relatively small number of parts required for the Maclaren structure. The

<sup>12</sup> As indicated above, the Court finds that the second releasable means consists of the knuckle joints plus either the seat struts or the wheel struts or both.

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end result is greater than one would expect from a combination of each of the individual components in the stroller.

B-I-W contends that this type of folding and cooperation would have been obvious to one skilled in the prior art by adding the foldable side braces disclosed in Turner, Martinson, and Nickles to Shibazaki which disclosed simultaneous folding. While such a combination could permit the inward folding demonstrated by the Maclaren invention which permits the reduction in the folded length of the structure, it would not have been obvious to one skilled in the prior art how to retain the characteristic of simultaneous two-dimensional folding once that change is made in Shibazaki since the simultaneous folding demonstrated by Shibazaki depends on the side braces remaining rigid. As Judge Medina stated in *Ling-Temco-Vought, Inc.*, *supra*, at 268-9:

It is apparent that the more numerous the references and the more remote the cited art from the subject matter of the patent in suit, the less likely it becomes that a person having ordinary skill in the art would have arrived at the result reached by the patent in suit.

It is only the guidance of hindsight, admittedly superior to foresight, which makes it easy now to see how the elements of various prior art can be combined to create a new, unique, useful subject matter which was previously unobvious.

Moreover, even if it were assumed that a person of ordinary skill in the art, given the assignment of producing a one-hand foldable stroller, could, by the exercise of routine talent, select the proper mechanical elements from the prior art and properly combine them, it would not necessarily follow that the invention was obvious, because the



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invention required the additional, prior step of perceiving one-hand foldability as a desirable goal.

. . . it does not negate patentable invention merely to establish that a desirable goal, once perceived, could have been reached by the exercise of routine skill.

• • •

Patentable ingenuity may be involved in the perception of the goal. *Plantronics, Inc. v. Roanwell Corporation*, — F. Supp. — (S.D.N.Y. 1975) (Conner, J.).

See also *Timely Products Corporation v. Arron*, — F.2d — (2d Cir. 1975).

In sum, the "signposts" of non-obviousness [*cf. Reiner v. I. Leon Co.*, 285 F.2d 501, 504 (2d Cir. 1960), *cert. denied*, 366 U.S. 929 (1961)] include the long felt need for such a device which was not theretofore available, its fairly instant commercial success, copying by the defendants, and a new, useful and unique permutation of various prior art combined into a subject matter as a whole which was previously unobvious. In *Lyon v. Bausch & Lomb Optical Co.*, 224 F.2d 530, 535 (2d Cir. 1955), Judge Learned Hand wrote in terms apposite here:

. . . nothing in the implementary arts had been lacking to put the advance into operation; when it appeared, it supplanted the existing practice and occupied substantially the whole field. We do not see how any combination of evidence could more completely demonstrate that, simple as it was, the change had not been "obvious . . . to a person having ordinary skill in the art"—§ 103.

When a competitor suddenly gives up his way of doing things and switches to the invention or, after poo-pooing the invention and reporting that it won't work the defend-

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ant adopts it and uses it successfully on a large scale, the evidence thereof may be more convincing than what he says. See *Lancaster Colony Corp. v. Aldon Accessories, Ltd.*, 506 F.2d 1197, 1199-1200 (2d Cir. 1974). It may be reasonably inferred from the copying that the Maclaren stroller represents a significant innovation, is a useful invention, and that a competent person skilled in the art required the device to imitate it. See generally *Systematic Tool & Machine Co. v. Walter Kidde & Co., Inc.*, 185 U.S.P.Q. 281, 293 (U.S.D.C. E.D. Penna. 1975).

*3. Claims Made*

The problem, however, as posed by B-I-W is whether Maclaren has actually claimed in the patent itself the particular cooperation of elements and simultaneous folding which appear in the actual stroller.

Section 112 provides in pertinent part that:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Maclaren's mechanical expert agrees with B-I-W that claim 1 itself does not expressly describe the feature of simultaneous one-hand folding, but states that such folding is inherent in the structure which claim 1 sets forth. Claim 1 itself quite clearly refers to the two types of pivotal movement by the two cross frames and describes two foldable brace members which are pivotally attached to the cross frames at specified points. This recitation suggests an intricate series of interconnected pivotal movements by the various members of the structure, which movements would be simultaneous because of the nature of the interconnection of the members, in contrast to the Turner patent. Although the specification may not be

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utilized to expand the claims of a patent, it is fundamental that the claims of a patent are to be construed in light of the specification and that both are to be read with a view to ascertaining the invention. *E.g.*, *United States v. Adams*, 383 U.S. 39, 48-49 (1966). Since such simultaneous folding movement is at the least suggested by the language of claim 1, reference to the specification is appropriate in the present case. *Compare Koppers Company, Inc. v. S&S Corrugated Paper Machinery Co., Inc.*, — F.2d — (2d Cir. 1975). Such folding is quite clearly discussed in the specification at column 4 lines 6-19 which also refers the reader to figure 2 which shows the stroller in an intermediate state of collapse. The Court therefore concludes that this feature is indeed claimed in the patent.

As opposed to the standard of non-obviousness under § 103, the standard of novelty under §§ 101 and 102, which is also based on the prior art, is a fairly liberal one, requiring only that all the elements of the putative invention or their functional equivalents cannot be found in a single, preexisting structure or description. *E.g.*, *Kahn v. Dynamics Corp. of America*, 508 F.2d 939, 943 (2d Cir. 1974), *cert. denied*, 95 S. Ct. 1657 (1975); *Shaw v. E.B. & A.C. Whiting Co.*, 417 F.2d 1097, 1101 (2d Cir. 1969). B-I-W concedes that the stroller is new, but contends that the collapsible support assembly which is embodied in the stroller is not novel. Regardless of whether the Maclaren invention is characterized as a stroller or as a collapsible support assembly, the Court concludes that the invention is novel within the meaning of §§ 101 and 102.

B-I-W argues that the Maclaren invention is not useful because the patent defines an inoperable structure. As indicated in the preceding discussion of disclosure, the Court concludes that the patent does define an operable structure. Beyond that, it is irrefragable that the Maclaren invention is a highly useful device.

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The Court therefore concludes that claim 1 meets the combined tests of §§ 101, 102, and 103. Since the rest of the claims involved in the suit are dependent upon the assembly defined in claim 1, each defining "an assembly as claimed in claim 1" and adding a particular refinement or variation, they do not require additional discussion and are all found to be valid.

*4. Late Claiming*

B-I-W asserts that the second releasable means of claim 1 and the struts of claims 10 and 11 were first claimed by amendment on February 23, 1968, more than one year after the Maclaren stroller was in public use on the basis of demonstrations to buyers at two national trade shows in January 1966, and that these claims are therefore invalid under the doctrine of late claiming.

The rule states that a public use of an invention more than one year prior to the time that the invention is specifically claimed renders the claim for the invention invalid, regardless of the fact that the invention may have been disclosed but not formally claimed in the application as originally filed less than one year after the public use. *Kahn v. Dynamics Corporation of America*, 367 F. Supp. 63, 72-73 (S.D.N.Y. 1973), *aff'd*, 508 F.2d 939, 943 (2d Cir. 1974), *cert. denied*, 95 S. Ct. 1657 (1975). *Contra Azoplate Corp. v. Silverlith, Inc.*, 367 F. Supp. 711, 731-32 (D. Del. 1973) (continuous disclosure of invention in an application filed within one year of public use is sufficient even though invention not claimed until more than one year after public use). The inquiry is twofold: (1) was there a public use of the invention claimed, and (2) were claims of substantially similar scope presented at an earlier state of the application process?

In the fall of 1965, Joseph Williams, an international inventor's representative acting on Maclaren's behalf, dis-



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cussed American manufacture of the stroller and another Maclaren product with the Collier-Keyworth Company of Massachusetts. Collier-Keyworth expressed interest in the stroller and initially borrowed one and later purchased several strollers in order to study the possibility of manufacturing them.

In December 1965, Collier-Keyworth indicated to Williams that its cost estimates were favorable and that it would like to show samples of the stroller to its largest customers at the January trade shows in order to test their reactions. Williams wrote that Maclaren and his attorney fully agreed that Collier-Keyworth "must" make a survey of the market and that the January trade shows in New York and Chicago offered the best opportunity. Maclaren had previously written to Collier-Keyworth, indicating that he was sending two more strollers with minor improvements in height for the New York show.

Robert Keyworth testified that at the New York trade show which he attended the stroller was demonstrated in a special room to between 40 and 50 of Collier-Keyworth's largest and most knowledgeable customers. Collier-Keyworth told its customers that it was neither soliciting nor accepting any orders at that time, but that it was contemplating manufacturing the stroller and wanted to know if it was salable and at what price.

After the trade shows, the strollers went back to the Collier-Keyworth factory for the continuing examination of their cost and structure. Keyworth took one of the Maclaren strollers home and used it for his child and eventually discarded it. Maclaren knew of such use and did not object, believing that Keyworth was only using the stroller on his own grounds and in confidence to satisfy himself that it was a useful article.

Negotiations between Collier-Keyworth and Maclaren were ultimately unsuccessful and no agreement for the

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manufacture of the stroller was ever reached between them, although Collier-Keyworth now manufactures a stroller which competes with the UMBROLLER and the stroller manufactured by Gerico under the Maclaren patent and the Bell license.

The initial question is whether the strollers sent to Collier-Keyworth for the trade shows contained the second releasable means of claim 1 and the struts of claims 10 and 11 of the patent. Maclaren could not remember whether the strollers sent to Collier-Keyworth were the same as those depicted in figure 4 of the patent, but indicated that there were very few differences in any of the models. Keyworth testified that the strollers received by his company were substantially similar to the figure 4 stroller, although the initial strollers had only four wheels. The Court finds that the strollers demonstrated at the trade show and used by Keyworth contained the features of claims 1, 10, and 11.

The next question is whether the trade shows or Keyworth's personal use of the stroller constituted a "public" use. A display of a claimed invention to a limited number of buyers in order to assess its marketability, as in this case, is not a public use. See *International Silver Co. v. Pomerantz*, 271 F.2d 69, 72 (2d Cir. 1959). No purchase orders were solicited or accepted. The fact that the marketability test was initially proposed by and was conducted by Collier-Keyworth rather than Maclaren does not change that conclusion.

Similarly, a use of the invention primarily for experimental purposes is not a public use. See *Shaw v. E.B. & A.C. Whiting Co.*, 417 F.2d 1097, 1099 n.1 (2d Cir. 1969). In Maclaren's mind at least, the strollers were still in something of an experimental, *pre*-production stage, although Collier-Keyworth was apparently prepared to consider manufacturing the strollers on the basis of the models they already had without further modifications. In Novem-



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ber 1965, Maclaren characterized the stroller sent to Collier-Keyworth as a "prototype in which improvements could obviously be made," and the two strollers sent for the January trade show in New York contained minor improvements in height.

At the same time, however, the stroller must be considered to have been in a fairly advanced stage of development. Maclaren himself apparently thought his stroller was rapidly approaching the marketable stage since he was concerned about waiting until the following year to introduce the stroller on the market. Collier-Keyworth was prepared to go forward as indicated and had not made any substantial alterations in the samples it had received. Nonetheless, continuation of *bona fide* experimentation does not constitute public use even though the invention may prove to be complete and require no further modification. *In re Yarn Processing Patent Validity Litigation*, 498 F.2d 271, 277-78 (5th Cir. 1974), *cert. denied*, 419 U.S. 1057 (1974).

The Court finds that Keyworth's use of the stroller at home following the January trade shows was not a public use. Maclaren had recognized in November that Collier-Keyworth had not had very long to assess the commercial and production possibilities of the stroller, and by permitting Keyworth to use the stroller at home, Maclaren provided him with a practical opportunity to test its usefulness. In context, Keyworth's use and subsequent discarding of the stroller appears to be more akin to a consumer test or experimental use under Maclaren's control than a "public" use. *See generally Shaw v. E.B. & A.C. Whiting Co.*, 417 F.2d 1097, 1099 n.1 (2d Cir. 1969).

Apart from the foregoing, the Court concludes that claims of substantially similar scope with respect to keeping the foldable side braces extended were in fact presented in the original application, even though they were not formally denominated as a "second releasable means".

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The toggle strut means of claim 2 of the original application, construed in light of the specification and drawings which were the same as those of the patent as issued, was broadly described as performing the two functions which were later broken down into the first and second releasable means. Claim 8 of the original application specifically describes a strut connecting an intermediate portion of a side brace to the bottom corner of the bottom frame. Thus there was no late claiming of the second releasable means or the struts, nor was a supplemental oath required.

## INFRINGEMENT

Whether or not a patent has been infringed is determined by reference to the claims construed in light of the specification and drawings. *United States v. Adams*, 383 U.S. 39, 48-49 (1966). As indicated above, the Maclaren patent was issued with 15 claims. Claims 1-3, 5-8, 10-12 and 14-15 are allegedly infringed, and claims 4, 9, and 13 are not involved in this suit at this time. It is agreed by the parties that the B-I-W stroller contains the elements defined in claims 2, 3, 5, 6, 7, 8, 12, 14, and 15. It is also agreed that the B-I-W stroller has all the elements of claims 1, on which all the other claims are dependent, except the "two-axes pivot joint" as defined in the claim.

While never expressly admitting that B-I-W copied the Maclaren stroller, counsel for B-I-W stated that the Maclaren stroller was clearly the motivation for what B-I-W did and that the Maclaren and B-I-W strollers are identical except for the pivot joint. Even at that, the only difference between the pivot joints in the Maclaren and the B-I-W strollers is that the former uses 3 pins in the pivot joint while the latter uses 4. Both strollers use two L shaped brackets. Both strollers use one pin to connect one cross frame to one L bracket and a second pin to connect the other cross frame to the other L bracket. The differ-

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ence between the two strollers is that Maclaren uses the third pin to accomplish two connections—connecting the two L brackets directly to each other and then connecting them to the wheel strut at the same point—while B-I-W uses a third pin to connect one L bracket to the wheel strut and a fourth pin to connect the other L bracket to the wheel strut at a point less than one inch below the third pin without any direct interconnection of the two L brackets.

This is hardly a difference of any engineering significance. Moreover, Goodwin's August 27, 1970 letter to Maclaren quite plainly indicated B-I-W's intent to proceed with the manufacture of a model which would infringe the patent unless the patent was invalid. Thus a finding of copying of the inventor's embodiment of the patent by B-I-W is warranted and is made.

The standard for infringement, however, is not the embodiment of the patent, but rather the claims of the patent. Gambrell indicated that B-I-W's defense to infringement of claim 1 was based on the particular wording of claim 1 with respect to the two-axes pivot joint and that if the Court concluded that the recitation defined an operable device, claim 1 was infringed by B-I-W's stroller. As indicated above, the Court does conclude that the two axes pivot joint describes an operable device. The phrase "interpivotally attaching" in claim 1 is not limited to the one pin used by Maclaren to connect the L brackets to the wheel struts, but also reached the use of two pins to accomplish the same result. The two L brackets and four pins of the B-I-W stroller perform the same function in essentially the same way to obtain the same results as the two-axes pivot joint defined in claim 1, the specification, and the drawings, and claim 1 is therefore infringed. *See Bela Seating Company v. Poloron Products, Inc.*, 297 F. Supp. 489, 507 (N.D. Ill. 1968), *aff'd*, 438 F.2d 733 (7th Cir. 1971), *cert. denied*, 403 U.S. 922 (1971).

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Judgment will be entered in favor of plaintiffs on liability for infringement of the claims in issue. Plaintiffs are entitled to an injunction restraining further infringement for the remainder of the term of the claims in issue and, if the parties cannot compromise the matter, to an accounting of damages for past infringement. The Court concludes that an award of increased damages under 35 U.S.C. § 284 is not warranted. Although infringement by defendants was intentional in the sense that they virtually copied the actual embodiment produced by Maclaren under the patent, their belief that the patent was invalid had an arguable basis, the conclusion of the Court that the patent is valid notwithstanding.

Plaintiffs' counsel should prepare a proposed judgment and submit it to defendants' counsel for approval as to form.

The foregoing shall constitute the findings of fact and conclusions of law required by Rule 52(a), Fed. R. Civ.P.

SO ORDERED.

September 19, 1975

MILTON POLLACK  
U.S. District Judge

## APPENDIX B

**The District Court's Judgment.**

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

70 Civ. 5348 (Mp)

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OWEN FINLAY MACLAREN and MIRON CHARLES BELL,  
Plaintiffs,

v.

B-I-W GROUP, INC.,  
GENESEE PLASTIC COMPANY, INC., and  
CROSS RIVER PRODUCTS, INC.,  
Defendants.

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B-I-W GROUP, INC.,  
Counterclaim-Plaintiff,  
v.

OWEN FINLAY MACLAREN,  
MIRON CHARLES BELL,  
GENERAL RECREATION, INCORPORATED and  
GERICO INCORPORATED,  
Counterclaim-Defendants.

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JUDGMENT

This cause came on to be tried before the Court sitting without a jury, and the Court having considered the evidence introduced by the parties and the arguments pre-

*The District Court's Judgment.*

sented on their behalf, and having on September 19, 1975 filed an Opinion containing its Findings of Fact and Conclusions of Law, it is hereby

ORDERED, ADJUDGED and DECREED THAT:

1. United States Letters Patent No. 3,390,893 and each of claims 1-3, 5-8, 10-12 and 14-15 thereof is good and valid in law.

2. Plaintiffs Owen Finlay Maclaren and Miron Charles Bell and the counterclaim defendant Gerico Incorporated are possessed of the entire right, title and interest in and to said Letters Patent No. 3,390,893 together with the right to sue for and collect for damages for past infringement thereof.

3. Defendants B-I-W Group, Inc. and Cross River Products, Inc. and each of them have infringed claims 1-3, 5-8, 10-12 and 14-15 of said Letters Patent No. 3,390,893 by making and selling strollers of the type exemplified by Plaintiffs' Exhibit 1c and Defendants' Exhibit A.

4. Plaintiffs Owen Finlay Maclaren and Miron Charles Bell and the counterclaim defendant Gerico Incorporated are entitled to recover of defendants the damages which they have sustained by reason of the said defendants' manufacture or sale of the said infringing strollers or their substantial equivalents on and after July 2, 1968.

5. Defendants B-I-W Group, Inc., Cross River Products, Inc., their successors and assigns, and each of them, their officers, agents, servants and employees and those persons in active concert, participation or privity with them or any of them, who receive notice hereof, are hereby restrained and enjoined from and after the expiration of the time



*The District Court's Judgment.*

allowed for appeal of this Judgment to the United States Court of Appeals or, if appeal of this Judgment is taken to the United States Court of Appeals upon affirmance or dismissal thereof, and until July 2, 1985 from making, using or selling or causing to be made, used or sold any device which directly or indirectly infringes any of claims 1-3, 5-8, 10-12 and 14-15 of said Letters Patent No. 3,390,893.

6. Defendants' counterclaim for a declaratory judgment of patent invalidity and non-infringement is dismissed.

7. Judgment is hereby entered in favor of plaintiffs against defendants B-I-W Group, Inc. and Cross River Products, Inc. and each of them on the issue of liability. All other matters including the determination of the amounts to be awarded as damages and costs, are reserved for later disposition, except for which this Judgment is final.

Dated: October 21, 1975.

MILTON POLLACK  
United States District Judge

Judgment entered 10/21/75.

RAYMOND F. BERGHARDT  
Clerk

**APPENDIX C****Opinion of the Court of Appeals.**

**UNITED STATES COURT OF APPEALS  
FOR THE SECOND CIRCUIT**

No. 708

September Term 1975

Argued: April 9, 1976

Decided: May 20, 1976

Docket No. 75-7613

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OWEN FINLAY MACLAREN and MIRON CHARLES BELL,  
Plaintiffs-Appellees,

—against—

B-I-W GROUP INC. and CROSS RIVER PRODUCTS, INC.,  
Defendants-Appellants.

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B-I-W GROUP INC.,  
Counterclaim-Plaintiff-  
Appellant,

—against—

OWEN FINLAY MACLAREN, MIRON CUARLES BELL, GENERAL  
RECREATION, INCORPORATED and GERICO INCORPORATED,  
Counterclaim-Defendants-  
Appellees.

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Before FRIENDLY, MANSFIELD and MULLIGAN, *Circuit Judges.*

Appeal from a judgment of the United States District Court, Southern District of New York, Milton Pollack, *Judge*, holding U.S. Patent No. 3,390,893, pertaining to

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"collapsible support assemblies" valid and infringed by defendants' baby-stroller. See 401 F. Supp. 283 (S.D.N.Y. 1975). *Held* that the patent in issue satisfies the requirements of novelty as contained in 35 U.S.C. § 102, but does not represent a non-obvious improvement over the prior art as required by 35 U.S.C. § 103.

*Reversed.*

JOSEPH C. SULLIVAN, Esq., New York, N.Y. (Charles R. Hoffmann, Esq., Gerald Levy, Esq., Kane, Dalsimer, Kane, Sullivan & Kurucz, New York; Roger W. Parkhurst, Esq., Stevens, Davis, Miller & Mosher, Arlington, Virginia; Francis J. Hone, Esq., Brumbaugh, Graves, Donohue & Raymond, New York, N.Y., of counsel) *for Plaintiffs-Appellees and Counterclaim-Defendants-Appellees.*

MICHAEL I. RACKMAN, Esq., New York, (Barry A. Cooper, Esq., Gottlieb, Rackman, Reisman & Kirsch, P.C., New York, N.Y.; Howard I. Rhine, Esq., Zimet, Haines, Moss & Goodkind, New York, N.Y. of counsel) *for Defendants-Appellants and Counterclaim-Plaintiff-Appellant.*

*MANSFIELD, Circuit Judge:*

The issue before us on this appeal is the validity of United States Letters Patent No. 3,390,893, issued on July 2, 1968, to plaintiff-appellee Owen Finlay Maclaren with respect to a "collapsible support assembly," suggested as useful for structures such as baby carriages, folding chairs, shopping carts, and the like. Maclaren subsequently

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licensed the patent to co-plaintiff-appellee Miron Charles Bell for manufacture in the United States. Defendants-appellants B-I-W Group Inc. (hereafter "B-I-W") and Cross River Products Inc.<sup>1</sup> are alleged to have infringed the patent by manufacturing a baby stroller embodying the patent's elements. In addition to responding to plaintiffs' allegation, B-I-W has counterclaimed against the plaintiffs and Bell's sublicensees for a declaratory judgment of invalidity and non-infringement.

Maclaren is a British inventor whose prior work largely had been concentrated in the aircraft field. In the mid-1960's he invented a "collapsible support assembly" which was employed in the manufacture of collapsible baby strollers and in 1965 he received British Patent No. 1,154,362 for this invention. One year later, on July 18, 1966, he filed a similar application in the United States Patent Office. Following several amendments to the original application, U.S. Patent No. 3,390,893 was issued to Maclaren. It contains 15 claims, the first of which is independent and provides the focal point of this suit, with the other 14 claims representing further refinements or variations. Claim 1 reads:

"A collapsible support assembly comprising a bottom cross frame of interpivoted rigid members, a back cross frame of interpivoted rigid members, a two-axes pivot joint interpivotally attaching one of each of the bottom frame members to one of each of the back frame members at each of two corners of said cross frames, said axes being oriented to permit the members of each cross frame to pivot with respect to each other and to permit said cross frames to pivot with respect to each other, two foldable brace members pivotally attached to the bottom cross frame near the other two corners of the bottom cross frame, respectively, and to the back cross frame near the other two

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corners of the back cross frame, respectively, first releasable means to hold the members of at least one of the cross frames in an extended position when the assembly is unfolded, and second releasable means to hold said brace members in an extended position when the assembly is unfolded."

Figure 1 from Maclaren's patent application, illustrating a baby stroller embodying Maclaren's design, is appended to this opinion. A brief description of the patent's design and operation is essential to the issues in this case.

The patent defines two interpivoted and rigid cross frames, one at the back and one at the bottom of the mechanism. In Figure 1 the cross frames are represented by the two rigid tubes 1 and 2, pivoted at 3, and tubes 4 and 5 pivoted at 6. When the mechanism is opened, the two X-frames form two planes at approximately a 90° angle to one another. The mechanism is locked into this open position by use of a toggle bar and side braces. In the drawing the two pieces of the toggle bar are marked by 9A and 9B and are connected in the middle by a knuckle joint marked 10. The side braces, represented by 7 and 8 and knuckle-jointed at 7B and 8B, are adjoined by pivots to the back X-frame at 4A and 5A and to the bottom frame at 1A and 2A. When opened, the toggle bar holds the X-frames at their maximum width while the side braces, when fully opened, separate the X-frames at roughly a perpendicular angle.

To collapse and fold the mechanism, one breaks knuckle joint 10 at the center of the toggle bar by moving it in an upward direction either by hand or foot. The handles at 7D and 8D are then pressed together by hand. This collapses both X-frames and breaks the pivots 7B and 8B that lock the side braces. As the toggle bar folds, both X-frames narrow; simultaneously, as the side braces unlock and fold, the two collapsed X-frames are rotated toward each other

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by pushing the handles 7D and 8D forward and downward until, when the structure is folded into a closed position, the side bars bounded by 7B-7D and 8B-8D run parallel to and press against the tubes marked 7C and 8C. The collapsed X-frames then also lie in a position parallel to the collapsed side braces. The result is a compact, stick-like mass.

In London during the summer of 1969, Alexandre C. Goodwin, Chairman of the board and counsel of B-I-W, purchased a Maclaren stroller. Impressed with its design, he consulted D. Deaver Brown, President of B-I-W. Together they decided to pursue the possibility of marketing the stroller in the United States. On December 27, 1969, Goodwin made the initial inquiry to Maclaren. Maclaren informed him that Bell had already been designated as his American licensee. Goodwin and Brown then entered into negotiations with Bell for the purpose of acquiring a sub-license. At the same time, Goodwin, in consultation with a patent attorney, began to have doubts concerning the validity of the Maclaren patent. He expressed these doubts to Bell, who disagreed. In February-March 1970, the negotiations between B-I-W and Bell were abandoned as Bell demanded too high a price for the sub-license.

In a meeting held on March 15, 1970, the B-I-W officials decided to manufacture a stroller essentially incorporating the Maclaren design. The first prototype was produced by the middle of the year and B-I-W proceeded to subcontract and market the stroller through a subsidiary. The complaint alleging infringement followed on December 7, 1970, in the United States District Court for the Southern District of New York.

There is little room for dispute that if the Maclaren patent is valid, B-I-W is liable for infringement. The trial therefore centered on B-I-W's contentions (1) that the claim language failed to adequately disclose the claimed invention as required by 35 U.S.C. § 112, (2) that the



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Maclaren patent is invalid for failure to meet the tests of novelty, 35 U.S.C. § 102, and of non-obviousness, 35 U.S.C. § 103, and (3) that the patent must be disallowed under the "late-claiming" doctrine, since a public use of the invention preceded the claims by more than one year, 35 U.S.C. § 102(b). Resolution of these issues unavoidably turned upon technical evaluations of the design and operability of Maclaren's claimed invention as compared to prior patented collapsible support mechanisms employed in such diverse applications as collapsible tents, strollers, and umbrellas. To clarify the issues each side introduced two expert witnesses to comment on the technical, legal, and business aspects of the invention.<sup>2</sup> After a bench trial lasting several days the District Court, Milton Pollack, *Judge*, on September 19, 1975, filed a carefully reasoned opinion finding the patent to be valid and therefore infringed by defendants' stroller. See 401 F. Supp. 283 (S.D.N.Y. 1975). With the finding of infringement, B-I-W's counterclaim for a declaratory statement of non-infringement was dismissed. This appeal followed. We reverse.

## DISCUSSION

Before considering the arguments advanced on this appeal, a summary of some basic principles governing the scope of our review in patent cases should be helpful. Although the ultimate question of patent validity is one of law, *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966); *Julie Research Laboratories, Inc. v. Guildline Inst.*, 501 F.2d 1131, 1136 (2d Cir. 1974), the trial court, as in any other case tried to the bench, must first find the material facts on the basis of the evidence presented to it and then apply governing patent law principles to arrive at its determination of the issue of validity. Guided by Rule 52(a), F.R.Civ.P., we will not ordinarily disturb the district

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court's findings of fact unless they are found to be "clearly erroneous," *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 123 (1969).

Our deference to the trial judge's findings is, of course, predicated in large part upon his having had the opportunity to appraise the credibility of the witnesses on the basis of personal observation and, through interrogation, to clarify disputed and often complicated issues of fact. See *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 609-10 (1950); *Sakraida v. Ag Pro., Inc.*, — U.S. —, 44 U.S.L.W. 4477 (Apr. 20, 1976). On the other hand, where the material facts are undisputed or the findings are based on documentary evidence which we are as competent to appraise as the district court, we have not hesitated to reject a determination of validity, either because the significance of the facts had not yet been fully perceived by the district court or there has been an error in the application of legal principles. *Julie Research Laboratories, Inc. v. Guildline Inst.*, *supra*; *Lemelson v. Topper Co.*, 450 F.2d 845 (2d Cir. 1971), *cert. denied*, 405 U.S. 989 (1972); *Shaw v. E.B. & A.C. Whiting Co.*, 417 F.2d 1097 (2d Cir. 1969), *cert. denied*, 397 U.S. 1076 (1970); *Watsco v. Henry Valve Co.*, 404 F.2d 1104 (2d Cir. 1968), *cert. denied*, 396 U.S. 821 (1969); *Ling-Temco-Vought, Inc. v. Kollsman Instrument Corp.*, 372 F.2d 263 (2d Cir. 1967). Within this framework we proceed to consider appellants' principal contentions.

In attacking the district court's decision upholding the Maclaren patent as valid, appellants do not quarrel with Judge Pollack's summary of general principles governing patentability as set forth in the Patent Act of 1952 and some of the leading decisions interpreting it. To be patentable, an invention must be useful, 35 U.S.C. § 101, novel, § 102, and non-obvious, § 103. There can be no dispute that Maclaren's invention, as embodied in a baby stroller, is a useful—indeed highly successful—creation.

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However, appellants contend that in two crucial respects the district court departed from or misapplied governing principles, with the result that he upheld as valid a patent that should have been rejected. First, they contend that in defining the scope of Maclaren's claimed invention and the prior art that must be considered in determining whether it was novel and non-obvious, the district court improperly relied upon specifications of the patent to narrow or limit its claims of invention. The effect, appellants argue, was to interpret the claimed invention as one limited to strollers, folding chairs and the like, whereas in fact its claims extend to collapsible support assemblies in general. Appellants contend that although the patent's claims, had they been limited to a stroller that could be collapsed simultaneously by the pressure of one foot and hand, might have been sufficiently novel and non-obvious to be upheld, the actual claims of the patent must be invalidated because they neither mention nor claim this one feature found by the district court to be novel, i.e., substantially simultaneous one-hand folding of the patented structure. Instead, it is argued, they are so broadly drawn as to be anticipated by the prior art and obvious to one possessing ordinary skill in the art of collapsible support assemblies.

Secondly, appellants argue that the district court made the mistake, in determining whether the Maclaren patent had been anticipated or rendered obvious by the prior art, of comparing Maclaren's commercial stroller, which is one of the embodiments of his invention, with the prior art rather than following the legally mandated course of comparing the broad claims of his patent with the prior art. Since the patent's claims are broader than claims which might be applicable solely to the stroller, appellants argue that the appropriate and relevant prior art is "collapsible folding structures in general" rather than the more limited

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scope defined by Judge Pollack, i.e., "stick-folding collapsible support assemblies used for strollers and for seating and carrying purposes in closely related fields." This narrower definition led the district court to eliminate from the pertinent prior art two patents, the Nickles collapsible tent patent (U.S. Pat. No. 1,773,847, issued Aug. 26, 1930) and the Martinson Patent for a collapsible frame for a churn (U.S. Pat. No. 1,250,923, issued Dec. 18, 1967). Appellants argue that these two patents anticipated Maclaren's claims.

Since both of these general contentions advanced by appellants, if upheld, could affect our holding on the issue of validity, a closer examination is required. It is a fundamental rule of patent law that the scope of protection granted by a patent is defined by the language of its claims rather than by its title, specifications, exhibits or by the commercial embodiments of the claimed invention. It is the "claims which define the boundaries of a patent monopoly." *Great A. & P. Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 149 (1950), rehearing denied, 340 U.S. 918 (1951); *Universal Oil Products Co. v. Globe Oil & Refining Co.*, 322 U.S. 471, 484-85 (1944); *Milcor Steel Co. v. George A. Fuller Co.*, 316 U.S. 143, 145-46 (1942); *Permutit Co. v. Graver Corp.*, 284 U.S. 52, 60 (1931).

"Patents, whether basic or for improvements, must comply accurately and precisely with the statutory requirements as to claims of invention or discovery. The limits of a patent must be known for the protection of the patentee, the encouragement of the inventive genius of others and the assurance that the subject of the patent will be dedicated ultimately to the public. The statute seeks to guard against unreasonable advantages to the patentee and disadvantages to others arising from uncertainty as to their rights. The inventor must 'inform the public during



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the life of the patent of the limits of the monopoly asserted, so that it may be known which features may be safely used or manufactured without a license and which may not.' The claims 'measure the invention.'" *General Electric Co. v. Wabash Co.*, *supra*, 304 U.S. 364, 369 (1938).

This rule does not preclude the court from looking to the specifications and drawings for the purpose of understanding and interpreting the claims of the patent. Indeed, to do otherwise would be to proceed in a vacuum. Neither accuracy nor fairness of decision would be furthered by demanding that a court conceptualize complex patent claims simply in the abstract, without resort to clarifying descriptions. Instead, "[w]hile the claims of a patent limit the invention, and specifications cannot be utilized to expand the patent monopoly, . . . it is fundamental that claims are to be construed in light of the specifications and both are to be read with a view to ascertaining the invention." *United States v. Adams*, 383 U.S. 39, 48-49 (1966) (citations omitted); *Schriber-Schroth Co. v. Cleveland Trust Co.*, 311 U.S. 211, 217 (1940); *Shaw v. E.B. & A.C. Whiting Co.*, *supra*, 417 F.2d at 1106 n.11. However, where the claim language is clear, it controls and may not be limited or distorted by resort to specifications, title, or drawings. *Great A. & P. Tea Co. v. Supermarket Equipment Corp.*, *supra*; *Koppers Co., Inc. v. S & S Corrugated Paper Mach. Co.*, 517 F.2d 1182, 1188 (2d Cir. 1975). "[N]o invention can be saved by features which appear only in the figures, and are not mentioned in the text." *Foxboro Co. v. Taylor Instrument Companies*, 157 F.2d 226, 232 (2d Cir. 1946), *cert. denied*, 329 U.S. 800 (1947). Even though a new, useful and non-obvious invention might have been claimed within proper limits, we cannot, once a patent containing overly broad claims is issued, save it from

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invalidation by in substance re-writing the claims to restrict the patent to the more limited invention that might properly have been claimed. See *Bishop & Babcock Co. Mfg. Co. v. Fedders-Quigan Corp.*, 270 F.2d 102, 106 (2d Cir. 1959). "It is not the responsibility of the courts to remedy deficiencies in patent claims which might have been avoided by a more careful preparation and presentation to the Patent Office." *Henry J. Kaiser Co. v. McLouth Steel Corp.*, 257 F. Supp. 372, 442 (E.D. Mich. 1966), *affd.*, 400 F. 2d 36 (6th Cir. 1968), *cert. denied*, 393 U.S. 1119 (1969). The controlling principle was perhaps best summarized by Judge Learned Hand in *Foxboro Co. v. Taylor Instruments Companies*, *supra*, 157 F.2d at 232, where he said:

"A patentee who claims broadly must prove broadly; he may not claim broadly, and recede as he later finds that the art unknown to him has limited his invention. That is the chance he must take in making broad claims; . . ."

Applying these principles here, the district court erred in limiting the scope of the prior art to "stickfolding collapsible support assemblies used for strollers and for seating and carrying purposes" and in resolving the novelty and non-obvious issues by comparing Maclaren's commercial stroller, rather than the claims of his patent, to the prior art. The Maclaren patent broadly and unequivocally claims an invention with respect to collapsible support assemblies in general rather than the more limited sphere chosen by Judge Pollack. Although the title, specifications and drawings refer to strollers, folding chairs, shopping carriers and the like as the principal examples of the invention, the claims are not so limited and cannot be labelled as ambiguous. Nor does it appear that the claims were unintentionally broadened. The file wrapper reveals, on the contrary, a deliberate effort to extend the coverage of



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the patent beyond the specifications and commercial examples. In earlier claims filed by Maclaren he attempted to limit the right of his patent to strollers, folding chairs, "and the like." However, all such qualifications finally were deleted during the prosecution of the patent. Furthermore, during the trial of the present case he advised the district court that he viewed "folding structures in general" as constituting the relevant prior art, 401 F. Supp. at 297. Accordingly, we conclude that while it was proper for the district court to consider, as *one* factor in gauging the closeness of prior inventions to Maclaren's patent, whether they were adaptable for use as a baby stroller, it was improper to exclude the two earlier patented collapsible support assemblies found in the Nickles and Martinson patents from consideration as relevant prior art.

Similarly the district court erred in holding that the Maclaren patent "introduced the novel feature of simultaneous one-hand folding" of the claimed collapsible support assembly. The feature of substantially simultaneous horizontal and vertical folding is unquestionably an important aspect of the commercial Maclaren stroller,<sup>3</sup> which may well have been the principal factor accounting for its financial success. In the words of the district court, "As one presses on the side braces, the bottom of the stroller folds upward as a result of the cooperation, as controlled by the first and second releasable means, of the relatively small number of parts required for the Maclaren structure. The end result is greater than one would expect from a combination of each of the individual components in the stroller." 401 F. Supp. at 299.

This novel feature of simultaneous folding, however, is nowhere mentioned, much less claimed, in the Maclaren patent. Its claims, while describing in detail the essential features of the collapsible support structure, make no reference, express or implied, to simultaneous folding. Nor

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do the specifications describe any such feature. Recognizing this problem, Judge Pollack concluded that a claim of simultaneous folding may be inferred as "inherent" from the Figures attached as drawings to the patent and from two paragraphs of the specifications which describe the method of collapsing the structure.<sup>4</sup> However, patentability may not be based on an undisclosed "inherent" feature. *Schriber-Schroth Co. v. Cleveland Trust Co.*, *supra*, 305 U.S. at 57-60; *B.B. Chemical Co. v. Cataract Chemical Co.*, 122 F.2d 526, 529-30 (2d Cir. 1941). Even though the specifications and drawings might be used for the purposes of construing the claims, there is simply no claim language on the subject of simultaneous folding, ambiguous or otherwise, to be construed. Even if we went further and treated the two paragraphs of the specifications as part of the claims, they would not suggest simultaneous folding. On the contrary, the statement is made that "*Continued folding, beyond the condition dotted in FIGURE 2, although possible in theory by continuing to bring the handles 7D, 8D together, is in fact not practicable, so the user assists folding by directly raising the forward end of the structure (or pressing down the handles toward the ground) until the folded condition of FIGURE 3 is reached.*" (Emphasis added) (E82). This language seems to point to the opposite conclusion, indicating that at least two steps are required to collapse the structure. To discover that it might be simultaneously folded one would have to build the collapsible support assembly described in the patent and test it. Accordingly we must conclude that, despite the patent's broad claims with respect to a collapsible support assembly, it does not include simultaneous folding as part of those claims. Broad as they are, the claims are limited to a collapsible support assembly containing the features described in the patent. We proceed, therefore, to consider whether these claimed features are novel and non-obvious.

*Opinion of the Court of Appeals.**Novelty*

Although the district court excluded the Nickles patented tent frame from the pertinent prior art, it went on to find that Nickles, while disclosing some common elements (e.g., a "second releasable means"), was based on differences in structural design and therefore did not anticipate Maclaren. While the record affords room for conflicting inferences, we do not think that we can fault the trial court's conclusion.

Maclaren's Claim 1 calls for a "collapsible support assembly comprising a *bottom cross frame* of interpivotated rigid members, [and] a *back cross frame* of interpivotated rigid members. . . ." (emphasis supplied). Although the Nickles tent discloses a collapsible assembly consisting of cross frames, they do not form the bottom and back of the mechanism as do Maclaren's two X-frames. Instead, Nickles' cross frames are placed in the shape of an inverted V, with the wide mouth of the V connected to two side braces that run along the ground. While Maclaren's side braces are knuckle-jointed and held open by a "second releasable means" that enables the braces to act as compression members, the Nickles side braces must rely upon the ground to hold them in the extended position. Appellants argue that Nickles utilizes cords instead of toggle bars and pivot joints to keep the tent extended in the manner of Maclaren's claimed first and second releasable means. However, the district court concluded that the ropes cannot prevent an upward break in the side braces when the tent is lifted off the ground and therefore cannot be adapted to other uses such as strollers. 401 F. Supp. at 298. This conclusion finds substantial support in the record.<sup>5</sup> Although Maclaren and Nickles each disclose a collapsible support assembly, the former performs a function that cannot be performed by the latter.

The second prior patent relied upon by appellant to discredit the novelty of Maclaren's invention is Martinson's

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collapsible churn frame which the district court, although excluding it from relevant prior art, nevertheless considered. Like Maclaren's, the Martinson patent reveals cross frames attached to side braces. But the district court concluded that Martinson differs from Maclaren in material respects that would render the invention unsuitable for use in a stroller or similar devices. See 401 F. Supp. at 298. In particular, like Nickles' tent and unlike Maclaren's design, Martinson's cross frames do not form the back and bottom of the invention but instead are side frames. In addition, the cross members of the Martinson frame are neither interpivotated nor absolutely rigid as found in Maclaren's claim language. While the respective experts of the parties dispute these factual differences,<sup>6</sup> we find no error in the district court's conclusion that Martinson did not anticipate Maclaren. It cannot fairly be said that there was identical disclosure of Maclaren's invention in the prior relevant art.

*Non-Obviousness*

A patent that is both novel and useful may nevertheless be invalid if the features contained in the claims would have been obvious to a person of ordinary skill in the prior relevant art, 35 U.S.C. § 103. Therefore, even though a claim satisfies the novelty requirements of § 102 and is not anticipated by a prior patent, the totality of earlier art may demonstrate that the invention lacks the degree of non-obviousness necessary to justify rewarding the inventor with the fruits of an economic monopoly. In determining whether the new development was non-obvious we must, of course, be careful to resist the temptation of simply filtering the new invention through the lens of hindsight. Since "[s]ubstantially all inventions are for the combinations of old elements," *Safety Car Heating & Lighting Co. v. General Electric Co.*, 155 F.2d 937, 939 (2d Cir. 1946) (L. Hand, C.J.), "the corrosive effect" of time can easily



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lead a court to succumb to the tendency of regarding virtually any improvement as "obvious" in light of the modern, updated art. *Lemelson v. Topper Co.*, *supra*, 450 F.2d at 848. Nevertheless, because the social costs of a patent monopoly can be great, courts have not been lax in closely scrutinizing the "non-obviousness" of a claimed invention and disregarding patents that follow too closely in the wake of their predecessors. See, e.g., *Sakraida v. Ag Pro, Inc.*, *supra*; *Julie Research Laboratories Inc. v. Guildline Inst. Inc.*, *supra*; *Supreme Equipment & Systems Corp. v. Lear Siegler, Inc.*, 495 F.2d 860 (2d Cir. 1974); *Lemelson v. Topper*, *supra*; *Formal Fashions Inc. v. Braiman Bows Inc.*, 369 F.2d 536 (2d Cir. 1966); *Lorenz v. F. W. Woolworth Co.*, 305 F.2d 102 (2d Cir. 1962). In short, § 103 mandates a "rather rigorous standard" in judging whether the claimed new invention was non-obvious. *Lemelson v. Topper*, *supra*, 450 F.2d at 848.

As correctly noted by the district court, see 401 F. Supp. at 296, the Supreme Court has delineated three areas to be determined and considered in evaluating the obviousness of patented work: (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; and (3) the level of ordinary skill in the art. *Graham v. John Deere Co.*, *supra*, 383 U.S. at 17. In addition, a court legitimately may consider such matters as the commercial success of the claimed invention and its satisfaction of long-felt needs, although such criteria are of distinctly secondary importance. See *Julie Research Laboratories Inc. v. Guildline Inst. Inc.*, *supra*, 501 F.2d at 1135; *Formal Fashions Inc. v. Braiman Bows Inc.*, *supra*, 369 F.2d at 539. An examination of undisputed facts with respect to each of the three factors outlined in *Graham* leads us to the conclusion that "the differences between the subject matter sought to be patented and the prior art are such that the subject mat-

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ter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C. § 103.

As noted previously, because Maclaren broadened his claim language beyond application to strollers and collapsible chairs, his invention properly is subject to comparison with the broad range of prior art which relates to collapsible support assemblies in general. A short description of two of the patents falling within the ambit of the prior art, Nickles and Martinson, was provided earlier. In addition to these two patents, relevant collapsible assemblies are found in two more patents: (1) the Turner patent for a collapsible frame to hold work on a sewing machine (U.S. Pat. No. 146,110, issued Dec. 20, 1893), and (2) the Shibazaki baby stroller (Japan Pat. No. 24,216, issued Mar. 18, 1926).

Turner's frame for holding work on sewing machines, like Maclaren's collapsible supporting structure, provides supporting *back* and *bottom cross frames* of "interpivoted rigid members" and two foldable side braces. The cross frames are held in the extended position by two clamps that pin the frames to the supporting structure. The clamps, like Maclaren's toggle bar, constitute a "first releasable means to hold the members of at least one of the cross frames in an extended position when the assembly is unfolded" as required in Maclaren's patent. Turner's design, however, lacks a similar "second releasable means" to hold the side braces in an extended position. The Shibazaki stroller similarly contains supporting back and bottom cross frames connected to two side braces by slides rather than pivot joints. The cross frames are kept in the extended position by toggle bars as in Maclaren's patent, but the side braces are not foldable and therefore do not disclose a "second releasable means."



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A comparison of the prior art, as revealed in the four earlier patents, with the claims at issue demonstrates that while none of the earlier patents combines all of Maclaren's features, each feature was foreshadowed in at least two of these predecessor collapsible assemblies. For example, the use of interpivoted rigid members can be found in Nickles', Turner's, and Shibazaki's cross frames.<sup>7</sup> The back-bottom orientation of the cross frames is evidenced in both Turner's and Shibazaki's design.<sup>8</sup> The interpivot attachment of one cross frame to the other in order to permit "the members of each cross frame to pivot with respect to each other and to permit said cross frames to pivot with respect to each other" (that is, to allow each cross frame to widen and narrow and to rotate with respect to the other) is provided by Martinson,<sup>9</sup> Turner,<sup>10</sup> and Shibazaki.<sup>11</sup> Nickles, Martinson, and Turner all exhibit "two foldable brace members"<sup>12</sup> and all three pivot the braces to the two cross frames.<sup>13</sup> A "first releasable means to hold the members of at least one of the cross frames in an extended position when the assembly is unfolded" is adopted by Martinson,<sup>14</sup> Turner,<sup>15</sup> and Shibazaki.<sup>16</sup> Finally, the "second releasable means to hold said brace members in an extended position" is provided by Nickles<sup>17</sup> and Martinson.<sup>18</sup>

The fact that when these earlier collapsible support mechanisms are considered as a group they disclose all of the elements of Maclaren's claims would not necessarily prove fatal to his patent. As the district court correctly recognized, although the prior art was extensive, "no single item of prior art shows the complete combination." 401 F. Supp. at 299. Judge Pollack further noted correctly that we have long recognized the validity of combination patents even when the individual elements are already firmly rooted in the relevant art. See, e.g., *Ling-Temco-Vought Inc. v. Kollsman Instrument Corp.*, *supra*,

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372 F.2d at 268; *Safety Car Heating & Lighting Co. v. General Electric Co.*, *supra*, 155 F.2d at 939; *B.G. Corp. v. Walter Kidde & Co.*, 79 F.2d 20, 22 (2d Cir. 1935). Finally, the court properly concluded that "[t]o invalidate the claim it must be shown that the combination was obvious, not merely its components." 401 F. Supp. at 299. However, the court erred in its application of these principles to the facts of this case. The error appears to have stemmed from the mistaken views, already noted by us, that the Maclaren patent claimed the novel feature of simultaneous folding and that a comparison for the purpose of determining non-obviousness could be limited to Maclaren's commercially successful stroller instead of the broader collapsible support assembly claimed by him.

Although none of the prior art patents, standing alone, discloses all of the features broadly claimed by Maclaren, Turner's foldable frame contains all of the features except a second releasable means to hold the side braces extended. It reveals the two cross frames, back-bottom orientation of these frames, a first collapsible release mechanism, and two foldable side braces, all of which are connected in a fashion that enables the structure to be collapsed in substantially the same fashion as the collapsible assembly claimed by Maclaren. When extended, the frame, like the Maclaren assembly, functions as a support mechanism. The Turner assembly, like Maclaren, is collapsed by initially loosening a first release mechanism (the clamps which are the counterpart of Maclaren's toggle bar), then pushing each of two cross frames together (just as Maclaren's two cross frames are collapsed by pushing the two handles 7D and 8D together) and then folding the two collapsed Turner cross-frames toward one another by collapsing the two braces separating them. The result is a single structure folded into the form of a stick assembly. Although Turner does not suggest that his assembly might

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be adapted for use as a stroller, the Shibazaki patent, which similarly discloses cross frames, back-bottom orientation of these frames, interpivot attachment of one cross frame to the other, and a first releasable means to hold at least one of the cross frames in an extended position, clearly demonstrates this possible use.

The essential question is whether the addition by Maclaren of a "second releasable means" to this previously disclosed combination of elements for the purpose of holding the side braces in extension would have been obvious to a person skilled in the art of collapsible mechanisms. On the undisputed facts we must conclude that it would have been. Turner's patent expressly noted the utility of including "any other suitable means" for holding the side braces in the open position, and Maclaren's own expert all but acknowledged that "it would be obvious" to modify Turner's side braces by introducing a knuckle joint or similar means in order "to prevent outward folds" in the brace elements.<sup>19</sup>

Thus, if Maclaren had had the Turner and Shibazaki patents before him when he invented his collapsible support assembly, which we must assume for present purposes, *Application of Winslow*, 365 F.2d 1017, 1020 (C.C.P.A. 1966), it would have been obvious to create a combination that joins Turner's foldable braces with a "second releasable means to hold said brace members in an extended position when the assembly is unfolded" as specified in Claim 1 of Maclaren's patent. The patent must, therefore, be invalidated under § 103 unless, as a last resort, it could be seriously contended that Maclaren's choice of the particular type of second releasable means shown in his patent somehow offers a non-obvious improvement over the prior art. We find no support for such a contention. The district court found "that the second releasable means consists of the knuckle joints plus either the seat struts or

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the wheel struts or both." 401 F. Supp. at 299 n.12. Nothing here would have been non-obvious to a skilled inventor. Martinson's prior patent, for example, utilized a knuckle joint to hold its brace elements extended. Others have employed a knuckle joint and strut combination.<sup>20</sup> Indeed, as the district court noted in another passage that is confirmed by the work of Nickles, Martinson, Turner and Shibazaki, "the prior art discloses the use of cross frames, pivot joints, toggle bars, foldable side braces, knuckle joints, and struts in folding structures." 401 F. Supp. at 299. Therefore, while Maclaren's invention embodied in a stroller undoubtedly produced a practical and commercially popular mechanism, we conclude that the claimed elements of his patent—either in their conception as a combination or in their implementing components—do not represent a non-obvious improvement over the prior art.

Since the patent must fall under 35 U.S.C. § 103, there is no need to consider the merits of defendant's "late-claiming" defense.

*Reversed.*



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## FOOTNOTES

<sup>1</sup> In 1972 B-I-W was merged into Cross River Products Inc. Both entities will be referred to as B-I-W in this opinion.

<sup>2</sup> Plaintiffs introduced the testimony of Don A. Fischer, a consulting engineer and former university dean of electrical and industrial engineering and Lew W. Throssel, a trade expert. Defendants relied upon James B. Gambrell, a professor of patent law, and Ferdinand Freudenstein, a professor of mechanical engineering.

<sup>3</sup> In actual practice, it seems that the Maclaren stroller is most easily collapsed by use of both hand and foot: foot to break the toggle bar; hand to fold the structure up.

<sup>4</sup> The two paragraphs (E 82, column 4, ll. 6-19) read as follows:

"To fold the structure from the condition of FIGURE 1 to that of FIGURE 3 (as is seen by the dotted lines in FIGURE 2) the user 'breaks' the toggle 9A, 9B, upwards and urges the handles 7D, 8D together. This collapses the X-frames and this action is accompanied by 'breaking' of the braces (about pivots 7B, 8B) so that corners 1A, 2A, rise toward the upward, folded, position.

"Continued folding beyond the condition dotted in FIGURE 2, although possible in theory by continuing to bring the handles 7D, 8D together, is in fact not practicable, so the user assists folding by directly raising the forward end of the structure (or pressing down the handles toward the ground) until the folded condition of FIGURE 3 is reached."

<sup>5</sup> Maclaren's expert contended that "[t]here is no first or second releasable means for the bars 12-12 would collapse if the tent were laid on its side to make some sort of seat." 65A. Similarly, on cross-examination plaintiff's expert reiterated that if the tent were lifted off the ground, the side braces would fold regardless of Nickles' use of rope. 485A. Defendant's expert disagreed, 141A, but the district court was entitled to resolve the factual dispute in plaintiff's favor.

<sup>6</sup> Compare defendant's expert testimony at 147A with plaintiff's at 492A-493A.

<sup>7</sup> While Shibazaki's cross frames use both parallel and cross bars, they still qualify as "cross frames" as contained in Maclaren's claim language and the district court apparently so found, see 401 F. Supp. at 298. On the other hand, the district court concluded

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that Martinson employed neither interpivoted nor rigid cross frames. *Id.* The record can support this conclusion. See 493A.

<sup>8</sup> Nickles' cross frames are oriented to form a V-shape adaptable to use as a tent. Martinson uses side cross frames.

<sup>9</sup> Martinson's cross frames are pivoted by joining their members to four side bars that in turn are pivoted together toward the top.

<sup>10</sup> Turner, unlike Maclaren, relies upon hinges to attach the cross frames to each other in order to secure the desired movement. But the hinges serve to pivot the two cross frames precisely as required in Maclaren's claim.

<sup>11</sup> Shibazaki's cross frames, however, would appear to have a less complex rotation movement than Maclaren's. In contrast, the drawings and language of Nickles' patent do not help us to clarify whether the movements of its cross frames duplicate Maclaren.

<sup>12</sup> Shibazaki's braces are rigid.

<sup>13</sup> Turner's cross frames and brace members are connected by hinge bars. But the hinge bars, which act as a pivot, comply with the language of Maclaren's Claim 1. See note 10 *supra*.

<sup>14</sup> Like Maclaren, Martinson uses a bar to hold the cross frames extended. While Maclaren's bar is released by breaking a knuckle joint at the center of the bar, Martinson's bar is released by detaching it from the left end of the side bar.

<sup>15</sup> Turner relies upon clamps to lock the cross frames in the extended position. Maclaren earlier had recognized that such locks can perform the function of a first releasable means. E117. The district court, however, apparently distinguished the clamps from Maclaren's first releasable means by noting that the clamps are not "organic" to the structure. 401 F. Supp. at 298. This distinction finds no support in the language of Maclaren's Claim 1.

<sup>16</sup> Shibazaki relies upon toggle bars to hold the cross frames extended just as does Maclaren.

It is arguable that the extended rope found in Nickles' invention also qualifies as a first releasable means, but it is unclear how a cord would perform the same extension function as a bar locked in place with a knuckle joint.

<sup>17</sup> The district court found that Nickles' "foldable brace running along the ground and connecting the two sides" qualifies as a "second releasable means" although he noted that it would be of little utility to a stroller and that "there is no structure which prevents an upward break in the brace." 401 F. Supp. at 298.



*Opinion of the Court of Appeals.*

<sup>18</sup> Martinson used a knuckle joint to hold the side braces extended. The district court found that the "foldable side braces connecting the two cross frames is kept extended [in Martinson], insofar as preventing it from breaking downward is concerned, by a knuckle joint." 401 F. Supp. at 298.

<sup>19</sup> "Q. What I ask you is this: Are the Turner side braces which are shown by the color blue capable of folding inwardly and outwardly?

"A. Yes.

"Q. And could you attach a knuckle joint in each of those side braces to prevent outward folds?

"A. You could.

"Q. Would it be obvious to do so if you wanted to prevent outward folds of the side braces in Turner?

"A. Well, it would be obvious to do so, yes, if you wanted to prevent outward folds of the side braces, but there is no interconnection to the rest of the apparatus.

"Q. I am talking about putting knuckle joints right in the center of the side braces at the points where they fold. Would it be obvious to do that if I wanted to prevent outward folds of the side braces?

"A. Yes."

463A-464A.

<sup>20</sup> In fact, another invention drawn from the prior art, Hurvitz's stroller (U.S. Pat. No. 3,094,339, issued June 18, 1963), contains a knuckle joint seat strut design that is essentially identical to Maclaren's. The district court specifically noted that Hurvitz "disclose[s] a foldable side brace with a knuckle joint and seat strut. . . ." 401 F. Supp. at 299. He went on to disregard Hurvitz's patent since it is "not in the context of a stickfolding stroller with a relatively small number of specially cooperating parts." *Id.* As noted earlier, this definition of the art is too narrow. And Hurvitz's invention aptly demonstrates that Maclaren cannot hope to predicate patentability on his choice of second releasable means since his use of a knuckle joint and seat strut probably cannot qualify as a novel, let alone a non-obvious, improvement over the art.

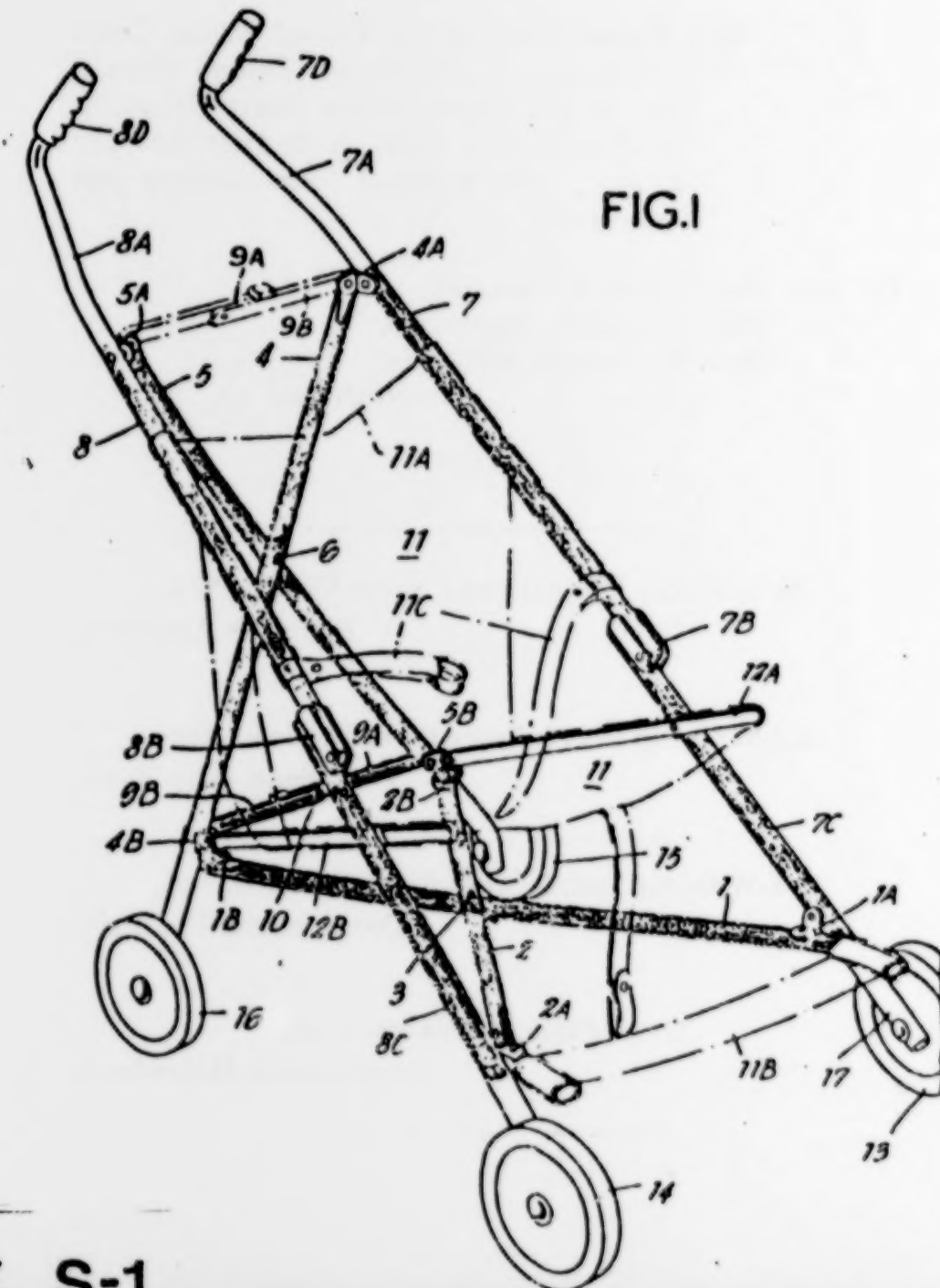
July 2, 1968

O. F. MACLAREN

3,390,893

STRUCTURES FOR FOLDING BABY-CARRIAGES, CHAIRS, AND THE LIKE

Filed July 18, 1966



**APPENDIX D****Order of the Court of Appeals Denying  
the Rehearing.**UNITED STATES COURT OF APPEALS  
SECOND CIRCUIT

At a Stated Term of the United States Court  
of Appeals, in and for the Second Circuit,  
held at the United States Court House, in  
the City of New York, on the twentieth day  
of July, one thousand nine hundred and  
seventy-six.

Present: HON. HENRY J. FRIENDLY,  
HON. WALTER R. MANSFIELD,  
HON. WILLIAM H. MULLIGAN,  
*Circuit Judges.*

75-7613

Owen Finlay Maclaren and Miron Charles Bell,  
Plaintiffs-Appellees,  
v.

B-I-W Group Inc., & Cross River Products, Inc.,  
Defendants-Appellants.

B-I-W Group Inc., & Cross River Products, Inc.,  
Counterclaim-Plaintiffs,  
v.

Owen Finlay Maclaren, et al.,  
Counterclaim-Defendants.

*Order of the Court of Appeals Denying  
the Rehearing.*

A petition for a rehearing having been filed herein by  
counsel for the appellees

Upon consideration thereof, it is

Ordered that said petition be and hereby is denied.

A. DANIEL FUSARO  
A. DANIEL FUSARO  
Clerk

**APPENDIX E****Order of the Court of Appeals Denying  
the Rehearing In Banc.**

UNITED STATES COURT OF APPEALS  
SECOND CIRCUIT

At a stated term of the United States Court of Appeals, in and for the Second Circuit, held at the United States Court House, in the City of New York, on the 20th day of July, one thousand nine hundred and seventy-six.

75-7613

---

Owen Finlay Maclaren and Miron Charles Bell,  
Plaintiffs-Appellees,

v.

B-I-W Group Inc. and Cross River Products, Inc.,  
Defendants-Appellants.

---

B-I-W Group Inc.,  
Counterclaim-Plaintiff-Appellant,

v.

Owen Finlay Maclaren, Miron Charles Bell, General  
Recreation, Incorporated and Gerico Incorporated,  
Counterclaim-Defendants-Appellees.

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A petition for rehearing containing a suggestion that the action be reheard in banc having been filed herein by

*Order of the Court of Appeals Denying  
the Rehearing In Banc.*

counsel for the appellees, and no active judge or judge who was a member of the panel having requested that a vote be taken on said suggestion,

Upon consideration thereof, it is

Ordered that said petition be and it hereby is DENIED.

Irving R. Kaufman  
IRVING R. KAUFMAN  
Chief Judge



**APPENDIX F****The Court of Appeals Judgment.****UNITED STATES COURT OF APPEALS**

FOR THE  
SECOND CIRCUIT

At a stated Term of the United States Court of Appeals for the Second Circuit, held at the United States Courthouse in the City of New York, on the twentieth day of May one thousand nine hundred and seventy-six.

Present:

HON. HENRY J. FRIENDLY  
HON. WALTER R. MANSFIELD  
HON. WILLIAM H. MULLIGAN  
Circuit Judges

75-7613

Owen Finlay MacLaren and Miron Charles Bell,  
Plaintiffs-Appellees,

v.

B-I-W Group Inc., & Cross River Products, Inc.,  
Defendants-Appellants.

B-I-W Group Inc., & Cross River Products, Inc.,  
Counterclaim Plaintiffs,

v.

Owen Finlay MacLaren, Miron Charles Bell, General  
Recreation Incorporated, & Gerico Incorporated,  
Counterclaim Defendants.

*The Court of Appeals Judgment.*

Appeal from the United States District Court for the Southern District of New York.

This cause came on to be heard on the transcript of record from the United States District Court for the Southern District of New York, and was argued by counsel.

ON CONSIDERATION WHEREOF, it is now hereby ordered, adjudged and decreed that the judgment of said District Court be and it hereby is reversed in accordance with the opinion of this court with costs and to be taxed against the appellees.

A. DANIEL FUSARO  
Clerk

By VINCENT A. CARLIN  
Chief Deputy Clerk

A true copy.

A. Daniel Fusaro  
Clerk  
By Vincent A. Carlin  
Chief Deputy Clerk

**APPENDIX G****Statutory Authorities.****APPENDIX**

United States Code

Title 35—Patents

**§ 103. Conditions for patentability; non-obvious subject matter**

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**§ 282. Presumption of validity; defenses**

A patent shall be presumed valid. Each claim of a patent (whether in independent or dependent form) shall be presumed valid independently of the validity of other claims; dependent claims shall be presumed valid even though dependent upon an invalid claim. The burden of establishing invalidity of a patent of any claim thereof shall rest on the party asserting it.